Registered at the G.P.O., Sydney, for Transmission by Post as a Newspaper. Published Weekly.

THE MEDICAL JOURNAL OF AUSTRALIA

(With which "The Australasian Medical Gazette," and "The Australian Medical Journal" are incorporated.)

The Journal of the Australian Branches of the British Medical Association.

VOL. II.—3RD YEAR—NO. 12. SYDNEY: SATURDAY, SEPTEMBER 16, 1916. PRICE 6D.

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A RESUMÉ OF 760 CONSECUTIVE MIDWIFERY CASES MET WITH IN GENERAL PRACTICE.[1]

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In general practice it is almost impossible to keep a detailed account of every confinement case attended, but it has been my practice for some years past to keep a few notes of all these cases, and a more detailed account of those of special interest. I am therefore able to give a general survey of a consecutive series of cases, and with a few comments on certain methods of procedure, commonly followed, I desire to invite criticism and discussion. The student hears so much about ante-partum hæmorrhage, post-partum hæmorrhage, eclampsia, etc., that when he takes up general practice he sees visions of these abnormalities in every case which he has to attend.

After ten years in general practice, I have come to the conclusion that, with ordinary skill and care the mortality in midwifery work need not cause any great anxiety. At the same time I am convinced that no department of medicine makes a greater demand on one's time, patience, and energy than does obstetric work. Of the 760 cases of which I have kept a record there were:—

714 vertex presentation cases.
16 pelvic presentation cases.
3 brow presentation cases.
3 cases of twins.
3 cases of contracted pelvis.
3 cases of placenta prævia.
6 cases of eclampsia.
1 case of severe accidental hæmorrhage.
4 cases of mild accidental hæmorrhage; and
8 cases of post-partum hæmorrhage.

Vertex Presentations.

Taking the 714 cases first. These were just the ordinary, every-day cases one meets with. None of them caused much anxiety, and all the patients were able to leave their beds within 14 days. Amongst these patients eight had a rise of temperature on the third day, but after an intrauterine douche with light curettage was given, the temperature came down within 48 hours, and the patient was able to leave her bed at the usual time. Many patients had slight laceration of the perineum, and two had extensive tears extending right through the *sphincter ani*. Immediate suture was done in every case. Of the two complete tears, one gave no further trouble, but in the other union was not satisfactory, and a second operation had to be performed three months later. The first case was due to an instrumental delivery of an exceptionally large child in a primipara, and the second also in a primipara, to delivery of a large child in an occipito-posterior position. I was not called in until the labour was too far advanced to change the position.

Four cases of adherent placenta were met with, and in this connexion I would like to remark that I find it practically impossible to be sure of removing every particle of a firmly adherent placenta with a gloved hand. I must confess to having had to introduce the bare hand into the uterus on several occasions, to detach portions of placenta and membranes. I have never seen any harm result from so doing, but have always taken the precaution of giving an intrauterine douche of biniodide of mercury (1 in 4000) immediately after detaching the placenta.

The Use of Forceps.

Instruments were used frequently, but only after the head had descended well into the pelvis, except in a few cases. The ordinary Simpson forceps were employed in most cases; in the few where it was necessary to do a high forceps operation, Milne-Murray's axis traction forceps were used. In general practice, I am sure forceps are used too frequently. There is no doubt that nowadays the majority of women demand chloroform, and to give it means delaying labour. The average general practitioner will not spend hours giving patients chloroform during a pain, and allowing the patient partially to recover consciousness between, until the head is finally born. Unless pituitary extract is given beforehand, or the chloroform is not administered until the head is actually on the perineum, its administration delays labour to such an extent that a busy general practitioner is tempted to apply forceps as soon as the patient is under the influence of the anæsthetic. Forceps are therefore used in general practice more often than is perhaps absolutely necessary. Latterly I have used pituitary extract in a number of cases. I find it invaluable when the *os uteri* is fully dilated and there is uterine inertia, provided, of course, that the pelvis is normal in size, and that there is no malpresentation. I regard pituitary extract as a somewhat dangerous drug, and consider that it should only be used in exceptional cases, when it is quite certain that delivery with forceps, if necessary, can be easily accomplished. Before giving it the urine should always be examined, and the pulse tension carefully determined, to make sure it is not high. As a general rule, when it is necessary for any urgent reason to hasten delivery, it is far preferable to employ instruments than to resort to pituitary extract.

Pelvic Presentations.

The danger in these cases is a stillborn child. All the 16 children were born alive, but one infant only lived for three days. My practice has always been to avoid any interference until the breech is born, except in cases of impacted breech. Only one of the sixteen was of this variety. The procedure followed in this case was to pass a folded-up linen

[1] Read at a meeting of the New South Wales Branch of the British Medical Association on July 28, 1916.

handkerchief around one groin of the infant and to use it as a tractor. By this means I was able to deliver the child, but unfortunately fractured its thigh. It has been my misfortune to fracture the thigh in another case of impacted breech, which I saw in consultation with a colleague, and which is not recorded in this series. I would like here to make a few remarks on fractures of the thigh caused in this way. I have heard it stated that the fracture is produced by folding the handkerchief from corner to corner, instead of from side to side, but I am sure this is not the case, because, although I folded the handkerchief in this manner in the first case, I did not do so in the second. There is in my opinion no danger of fracturing the thigh, providing that the limb remains supported by the pelvic wall on the one hand and by the body of the child on the other; but as soon as the breech appears at the vulva, one should proceed with the greatest care. When the unsupported thigh appears it will break if any force is used. With regard to the treatment of this condition, binding the thigh on to the abdominal wall will give quite as good a result as splinting, and, moreover, it makes it much easier to keep the child clean. The three twin pregnancies gave no trouble either at birth or afterwards.

Brow Presentations.

In the first of my cases labour had proceeded until the *os uteri* was almost fully dilated before I was called in. The condition of the mother was good, and I administered chloroform and changed the presentation into a first vertex presentation. The child was then delivered with instruments without much difficulty.

The second patient had engaged the services of a doctor from another district. He saw her after she had been in labour for several hours. After the lapse of another 12 hours, as he was unable to attend, he told the people to get a doctor who lived nearer. I saw the patient some 24 hours after the onset of labour, and the head had not engaged. The patient was an exceptionally strong, healthy woman, and her condition was excellent. Dr. Windeyer saw her in consultation with me, and we decided to alter the presentation. Under chloroform I was able to change it into a first vertex presentation and to deliver a 10lb. healthy child.

The third case was in a patient with a flat pelvis. Labour had proceeded for about 12 hours before I was called in. The head was freely movable above the brim, and the brow presented. I gave chloroform, and changed it into a first vertex presentation. The patient was then left for several hours. Later it was found that the head had engaged. An attempt to deliver with forceps, however, failed, and I was forced to do a craniotomy by perforating and crushing the head before I could deliver the infant. A Cæsarean section would have been better practice, but I thought it possible to deliver with forceps. These three cases gave no trouble at all after delivery.

Contracted Pelvis.

Contracted pelves are not very common in this country, because of the rarity of rickets.

The first case met with was a generally contracted pelvis. The head made no attempt to engage even after 18 hours' labour. A Cæsarean section was done, and a healthy living child delivered. A second Cæsarean section was performed on this same patient two years later, and at the second operation it was found that, as a result of the first, the omentum had become adherent to the scar in the uterus in several places. The patient, however, had suffered no inconvenience from this. During the second operation, as the patient did not desire to have any more children, I divided both Fallopian tubes between ligatures. The incision in the uterus was in each case closed with a single layer of plain catgut sutures, and the patient made an uninterrupted recovery.

The second case of contracted pelvis met with was of the flat variety. In this case I attempted delivery with instruments, but without success. As the child was alive, and as every precaution against sepsis had been taken, I decided to do a Cæsarean section in this case also. The child, however, did not survive, but the mother made an uneventful recovery.

The third case was that mentioned under the heading of brow presentations.

Placenta Prævia.

In the first case there was the usual history of sudden hæmorrhage coming on during sleep, and near term. The nurse was sent for, and on arrival the bleeding had ceased. I saw the patient several hours later, and found the *os uteri* sufficiently dilated to admit two fingers. The placenta could easily be felt, and extended almost to the margin of the dilated os. Chloroform was administered, and bipolar version performed. The patient was then left alone, the precaution being taken of tying a strip of gauze to the child's leg in case any further bleeding occurred. A still-born child was delivered several hours later without any further trouble.

The other two cases had a somewhat similar history, except for the fact that the hæmorrhage came on at eight months, and was not so free as in the first case. Similar treatment was adopted, viz., bipolar version, and leaving the rest to nature. In these two cases the children were born alive.

Eclampsia.

I make it a rule to examine the urine in all cases at seven or eight months, and at the same time to warn patients when I first see them that if they get severe headache or swelling of the face or feet, or notice any diminution in the amount of urine passed they are to send a specimen for examination. In this way I feel sure I have been able to ward off fits in several cases. Three of the cases were mild, and gave no anxiety. In all the cases the fits were soon followed by labour.

Two of the attacks were in the same patient in two successive pregnancies. The urine during the second pregnancy was closely watched, but in spite of this, the patient got an eclamptic seizure at seven months. Labour was induced, and the patient recovered. The sixth case was the only one in the series of 760 in which death occurred. This patient was a primipara, who was in a public hospital for severe alluminuria at eight months. She left the

hospital as the albumin had almost disappeared, and then at term had a seizure which proved fatal. Six other cases of severe alluminuria were met with, but in none did eclampsia develope. In one, labour was induced at eight months, as the urine did not improve under treatment.

The treatment adopted in the eclamptic cases was, first a hypodermic injection of morphine (gr. ¼), repeated in one hour if necessary, and then every three or four hours, but not exceeding 2 grains in 24 hours, and croton oil 2 minims in butter is placed on the back of the tongue. A high rectal injection is given, and in some cases gastric lavage also. Veratrone in 5 minims doses is injected if the pulse tension is high, and is repeated in 15 minutes if it still remains high. Of course no food of any kind is given. Water or barley water is allowed when the patient is able to swallow.

Accidental Hæmorrhage.

There was one severe case of accidental hæmorrhage. This patient gave me the most anxiety of any in the series. She had at first a concealed accidental hæmorrhage evidenced by a fainting fit and severe abdominal pain at 11 a.m. I did not see the patient until about five hours later, and by this time she was bleeding fairly freely *per vaginam*. She showed all the signs of severe hæmorrhage. Fortunately labour was progressing, and the *os uteri* was sufficiently dilated to allow me to deliver the child instrumentally at once. The birth of the infant was followed by a gush of blood which had filled the uterus, and with this gush came the placenta. Needless to say the child was stillborn. The usual treatment for hæmorrhage was adopted and the patient gradually recovered.

The other five cases were very mild and gave no trouble.

Post-partum Hæmorrhage.

The eight cases were treated in the usual manner. In one a high temperature was maintained for weeks. This case was interesting from another point of view. As the patient's temperature remained up after the third day, I decided to give an intrauterine douche, with light curettage, and this was done without an anæsthetic. After another three days, as the temperature did not fall, curettage under chloroform was decided upon. Whilst curetting in the lateral region of the cervix, the patient had an alarming hæmorrhage, and the only way I was able to control it was to clamp the base of the broad ligament, through the vaginal vault with ovum forceps. As the only instruments I had with me were those necessary for curettage I was obliged to leave the ovum forceps on for several days. The only explanation I can give for this hæmorrhage was that an aneurysmal dilatation of the uterine artery must have been exposed in an old lateral tear of the cervix, and have been ruptured with the curette. The hæmorrhage was too severe to be coming from the large venous plexus in the base of the broad ligament.

Septicæmia.

In cases in the series the temperature exceeded 102° for four weeks. One was the case of post-partum hæmorrhage which I have just mentioned. In the other a mass, cellulitic in origin, developed. This mass could easily be felt through the abdominal wall and on bimanual examination. Both patients were given polyvalent antistreptococcic serum with doubtful benefit. The one caused grave anxiety, mainly, however, on account of hæmorrhage, and the other, although she had a high temperature, never caused any real anxiety.

Besides the cases mentioned above there was one case of *phlegmasia alba dolens*. This came on about a week after an instrumental delivery. The patient had slight fever for two weeks, and the leg remained œdematous for several months.

This completes the list of cases for which I was engaged beforehand to attend at the confinement, and of course does not include abnormalities seen in consultation with other men. Naturally in the course of general practice we see and take part in the conduct of a good many cases which cannot be included in a list of cases representing one man's personal experiences.

SOME POINTS IN THE CONDUCT OF NORMAL LABOUR.[1]

By **J. C. Windeyer, M.B., Ch.M. (Syd.), M.R.C.S., L.R.C.P. (Lond.),**
Honorary Assistant Surgeon, Royal Hospital for Women.

When asked for the title of my proposed contribution to-night these notes had not been written, and as some of the points brought forward would not come under the usual definition of normal labour, I must ask your permission to wander slightly beyond the strict interpretation.

Examination of the Patient Before Labour.

This most important examination is not always performed, as is shown by the fact that a large number of women are sent into hospital late in labour with abnormal conditions, such as transverse presentation and tumours in the pelvis which could easily have been detected beforehand. Some of these patients have not engaged a doctor, but in others neglect is apparent. These patients have usually been examined vaginally by incompetent nurses, and so we have the added risk of sepsis to contend with.

The conduct of any labour should begin when the patient engages the doctor. Several points can be noted more easily then than later on, such as the pelvic capacity and the presence of tumours of the pelvic organs or bones. A bimanual examination will reveal whether the size of the uterus corresponds to the period of amenorrhœa or not. I always see my patients about three weeks before the expected date, and a note is made of the condition found on palpation of the uterus.

If a vaginal examination has not been made recently, this is done at the same time. Should the patient go a few days beyond her due date she is seen again.

One point that I have found useful in vertex cases is the position of the anterior shoulder. This is

[1] Read at a Meeting of the New South Wales Branch of the British Medical Association on July 28, 1916.

usually easily felt as the hand is brought up along the abdomen from the pubes. I have found that when the head is floating freely above the brim the shoulder is higher than half way between the umbilicus and the upper limit of the pubic hair. When it is about or just below the half-way point the head is tending to engage, and when it is two-thirds of the way down, the head is fully engaged.

I have been using this method for some years past, and am convinced of its utility, as one often comes across women in whom there is difficulty in palpating the foetal head just above the pelvic brim, especially if deep pressure has to be used to reach it. This difficulty is increased during labour, the tenderness of the lower abdomen preventing proper examination. In such cases one can note the progress of the descent of the head by palpating the anterior shoulder; this is easily felt in the majority of cases, and causes no discomfort to the patient.

As the head descends the shoulder will be felt lower in the abdomen. Finally at the end of the first stage it has reached a point about one inch above the hair line, and towards the end of the second stage it disappears below the symphysis. This point has saved the performance of a vaginal examination during labour, as instanced by the following case seen lately.

A primipara, aged 32, was seen on two occasions during the three last weeks of pregnancy. On both occasions the head was movable above the brim and the shoulders about half an inch above the half-way point between the umbilicus and the pubic hair line. I was anticipating some delay at the brim in this case, but on seeing the patient early in labour I could make out the shoulder two-thirds of the way down, but was unable to feel the head owing to tenderness on deep palpation. I then went home, and had some hours in bed. I have adopted the pubic hair line as the lowest point, since only one hand is needed in the manœuvre. I generally sit or stand on the right-hand side of the patient, face towards her feet, and use the left hand. I may state that I have not met with a sufficient number of flat pelves to note whether when the head is passing through the brim with an exaggerated tilt of the head it affects the position of the shoulder.

The second point which I wish to bring before you is the use of smooth, instead of rough, gloves in obstetric work. It is impossible to know whether either the finger or the whole hand may have to be passed into the vagina, and there is much less risk of carrying up sepsis with smooth gloves. The points in their favour are:—(1) that it is much more comfortable to the patient to insert a smooth surfaced glove through the vaginal orifice, and (2) in the application of forceps the blades slip over the guiding finger much more readily when they are encased in smooth gloves.

The third point I wish to make is concerned with the management of the third stage of labour. For some years I have been in the habit of leaving the uterus to separate the placenta without any artificial stimulation, and I am convinced by so doing there is less liability of partial separation with hæmorrhage. This method at times requires the exercise of a great deal of patience, but that is a necessity in obstetric work.

My routine in the third stage is as follows: After the birth of the child the mother is turned on her back. When the cord ceases to pulsate it is tied and cut. I then put on a fresh pair of gloves, and, if necessary repair the perineum. This can be done more easily before the placenta separates, as there is no blood trickling down from above. Catgut is employed within the vagina and silkworm-gut or strong horsehair externally. Whilst doing this the uterus is watched. It can easily be seen; but if in doubt the hand can be placed gently above it. When the signs of separation of the placenta are present, the patient bears down strongly, and frequently this is sufficient to expel it from the vagina; if not, it is expressed by the Dublin method.

I use my hands during the third stage so that my right hand is free from contamination and is in a fit condition to be introduced into the vagina if necessary.

My fourth point deals with the use of pituitary extract. This is very useful in multiparæ in whom there is delay in the second stage, and the only cause of the delay is the absence of good contractions of the uterine musculature. In such cases the intra muscular injection of ½ or 1 c.cm. of pituitary ex tract is followed by the birth of the child within a few minutes, thus preventing some hours of needless suffering and probably the ultimate application of forceps. In primiparæ its use is very liable to cause severe laceration of the perineum, owing to the strong contraction forcing the head through the vaginal orifice before it has time to dilate. In such cases I prefer to use forceps, as one can regulate the rate of dilatation, and in many cases prevent tears occurring.

There is one other point which I wish to bring forward, merely in order to increase the scope of the discussion. I had hoped that someone who had used scopolamine-morphine would have given his experiences in a paper to-night. It is difficult to make up one's mind from reading the literature on the subject, some authors being for and others against it.

I have used it in a sort of tentative fashion in a few cases, and although I have had no bad results, I would not recommend its use until I see many further good reports in its favour.

PROPHYLACTIC INDUCTION IN NORMAL PELVES.[1]

By **Fourness Barrington, M.S. (Edin.), F.R.C.S. (Eng.),**
Sydney.

The date at which the onset of labour may be expected cannot be determined with absolute accuracy. So we strike an average which works well in practice.

The average duration of pregnancy in the human female is generally accepted as 280 days, 40 weeks, or 10 lunar months, calculated from the commencement of the last menstrual period. Normally then,

[1] Read at a Meeting of the New South Wales Branch of the British Medical Association on July 28, 1916.

pregnancy lasts 40 weeks and ends in *partus maturus*, or full-time birth.

When labour occurs considerably later than the normal period of 40 weeks it is post-mature. Sir James Simpson's case went 315 days, and von Winckel's 322 days. Von Winckel holds that 70% of children over 8 lbs. in weight are post-mature. The child's head in protracted gestation is not only larger, but harder and less mouldable. The mechanical problem of delivery becomes more difficult, and is attended with increased risks, in proportion to the child's size, both to mother and offspring.

Two cases illustrating this may be briefly mentioned.

Case I.—E.S., 6-para, æt. 32, was admitted to the Royal Hospital for Women on 22nd May, 1914. Her previous labours had been uneventful. Her last menstrual period was from 4th to 8th of July. She was therefore 42 days post-mature. She had been in labour 48 hours.

The pelvic measurements were normal. The child's back was lying in the left anterior position, and the large, unduly-hard head, unengaged. *Per vaginam*, the membranes were unruptured and sausage-shaped, the os the size of a shilling, the head being high up and ballotting freely.

As there had been little handling, she was delivered by the conservative Cæsarean section. The child, a female, weighed 10½ lbs. Its head was unduly ossified, the fontanelles small and the sutures closed. All the head measurements were a full inch longer than normal. Both mother and child did well.

Case II.—E.G., æt. 36, primigravida. When I saw her at the Royal Hospital for Women, on 29th June, 1916, the temperature was 102.6° F., and the pulse-rate 140. Her last menstrual period was from 28th August to 2nd September. She was thus 25 days post-mature.

The external measurements of the pelvis were normal. The fœtus was lying in the left occipito-posterior position, the head was fixed, the fœtal heart sounds 150 per minute, and meconium was coming freely from the vulva. *Per vaginam*, the membranes were found to be ruptured, and the os two-thirds dilated; a large caput was present.

She was anæsthetized, the cervix manually dilated and delivery effected by axis-traction forceps. The child, a male, was born dead, weighed 10½ lbs.; the head was well ossified. Extensive damage to the pelvic floor was repaired. She did well subsequently.

Both these women had dystocia from enlargement, and undue ossification of the fœtal head, the result of post-maturity. In the former, the membranes being unruptured, the fœtus was safe, and the risk was to the mother from operation. In the latter, the risk was to both hostess and infant, the latter losing its life. Had the onset of labour been at maturity, there would have been little difficulty in either of them.

In private practice for the past ten years, steps have been taken to prevent post-maturity. The time for the onset of labour is by no means a matter of indifference. It is in our own hands, and we can control it in a precise and scientific manner. Instead of the watch-and-wait policy of the midwife, we should give to the expected mothers of the human species the same care and attention that the orchardist gives his fruits. The apple is gathered at maturity: why not the human fœtus?

We can arrange for the advent of the human offspring at maturity, and thereby simplify and regulate the course of labour along strictly conservative lines. In doing so, always presuming the pelvis has by previous measurement been found normal, there are two necessaries: (1) To determine the maturity of the fœtus, and (2) to promote the onset of labour at, or shortly after, maturity.

The maturity of the child is determined by: (1) Naegele's method of calculating the duration of gestation (add seven days to the first day of the last menstrual period and count back three calendar months; this gives approximately the full time); and (2) the height of the uterus.

Measure by pelvimeter from the upper border of the symphysis to the fundus. The distance in inches is approximately the age in lunar months. If you double this you get the length of the child. At full term, the pelvimeter distance from pubes to fundus is ten inches, and the child's length 20 inches.

This should be controlled by Ellice McDonald's tape method, which depends on the fact that the height of the fundus, as measured along the curve of the abdominal wall, increases 3.5 centimetres for each lunar month. "The measurement is taken with the patient lying on her back. One end of the tape is placed at the upper border of the symphysis pubis, while the other is held by the thumb in the palm of the hand. The fingers of the upper hand are held at right angles to the fundus of the uterus, and the tape follows the contour of the uterus, save at the last dip." At full term, so measured, the uterus is 35 centimetres (14 inches) high. A fundal height of 35 cm. indicates an averaged-sized child of 3,300 grams (7½ lbs.).

(3) The size of the child's head can be roughly gauged by the pelvic grips. In multiparæ the relative size of the head to the pelvis is estimated by Müller's method of pushing the head into the brim by means of bimanual palpation.

When we thus have good grounds for assuming the child is mature, we can promote the onset of labour. This is in harmony with sound conservative principles. In practice, a careful watch is kept on all patients near term, especially primiparæ. Seven days license is granted all primiparæ under 30. If labour does not occur spontaneously, it is then induced.

A primipara over 30 years of age encounters greater risks than a younger woman, and these risks steadily increase as age advances. Therefore, this seven days' license is not allowed in primiparæ over 30.

The following case illustrates the advantage of this:—

Mrs., —., æt. 36, primigravida, term date 3rd January. Her pelvic measurements had previously

been found to be normal. She was visited on the date named, and the fœtus found lying in the left occipito-anterior position; the head was large, hard and fixed in the pelvis. Both tape and pelvimeter measurements fully indicated maturity. Next day labour was induced. Pains came on in six hours. She was delivered by axis-traction forceps of a male child weighing 9 lbs. with great difficulty 24 hours after the onset of labour pains. There was a large caput, marked head-moulding, and it took 20 minutes to get the infant to breathe properly. The damaged pelvic floor was repaired.

I am quite sure that if the onset of labour had been delayed a week, a live child could not have been pulled through this pelvis.

The onset of labour is promoted by the introduction of an intra-uterine bougie. It is simplest, safest and best. The surroundings must be clean. The vulva is shaved and cleansed, a sterilized normal saline vaginal douche is given immediately before. An anæsthetic is usually not needed. The patient is put in the lithotomy position, and the vulva again cleansed. The cervix is exposed by speculum, and the *portio vaginalis* painted with tincture of iodine. Its anterior lip is then seized with a vulsellum. A No. 12 sterilized Belfast linen bougie, smeared with 1 in 1,000 biniodide of glycerine, is pushed home into the uterus, avoiding contact with anything. It is kept *in situ* with a plug of iodoform gauze. If labour pains do not occur in 24 hours, the bougie is removed. After giving a normal saline douche, three or four fresh bougies are similarly introduced to hasten matters.

The risks of this induction are slight. They are septic infection and prematurity on the part of the infant. So far, neither has occurred.

The prevention of post-maturity diminishes greatly the morbidity and mortality to both mother and child. It lessens the frequency and severity of operative interference, and simplifies one cause of dystocia. It diminishes the risk of septic infection, and of undue damage to the pelvic floor. It will not often be required. It has been carried out nine times in ten years under the conditions named, *i.e.*, at or shortly after maturity in normal pelves.

A first labour is a trial trip. The carrying out of this maturity induction makes the trip easier. If, in spite of such induction, labour proves difficult and the disproportion between the head and the pelvis is such that strong axis-traction is needed for delivery, it is a guide to the conduct of a subsequent labour.

A little woman who marries a man with a large head is always looked on with suspicion. The paternal head is apt to be handed on to the progeny.

Dystocia from over-development of the child, the result of protracted gestation, is not very uncommon. The head of post-maturity is unduly large and ossified, and, owing to its diminished plasticity, moulds badly. It is obvious that such a head may as effectively obstruct labour in a full-sized pelvis as a normal-sized head in a small pelvis. Prematernity measurement of the pelvis detects the latter, and appropriate treatment is instituted. It is surely as scientific to prevent the large head of post-maturity by prophylactic induction at or near term.

Further, it must not be forgotten that a considerable proportion of post-mature children die *in utero* before the onset of labour.

Finally, I commend to your earnest consideration prophylactic induction in normal pelves, as it is in strict harmony with the conservative trend of modern obstetrics.

OPERATIONS ON HERNIA UNDER LOCAL ANÆSTHESIA.[1]

By **D. Kelly, M.B. (Melb.).**

Relief of pain by local applications was practised as far back as at the Siege of Troy, and right through the centuries to the present day some form of local application has been used to deaden the pain of surgical operations.

The discovery of the hypodermic syringe in 1845 gave a great impetus to this method, and at the present time every practitioner is familiar with the procedure of injecting drugs to produce local anæsthesia. Yet the majority confine their local anæsthetic work to minor surgery.

Knowing that much major operative work can be done by this method, and believing that it is to the patient's advantage, is my excuse for reading this short paper.

It is well known that quite a number of patients fear the general anæsthetic, as much as, if not more than, they do the proposed operation, and especially is this noticed if the case is not one of malignant or some painful and disabling disease. Any of you present, who have had to undergo an operation under general anæsthesia, will remember the fear you had of not awakening, notwithstanding the fact that you had the utmost confidence in the anæsthetist.

In my opinion, the administration of a general anæsthetic by a competent anæsthetist, in quite a number of cases, is much more risky to the patient then the operation performed by a skilful surgeon. Now, if we can promise our patient a painless operation, without the loss of consciousness, why expose him to unnecessary risk?

Many patients afraid to submit to operation, if given this promise, readily consent to have their disability removed. The advantages of local over general anæsthesia in properly selected cases are so many that it is hard to understand why the local is not more frequently adopted.

I have done many major operations under local anæsthesia, and have had the most satisfactory results, but this evening will confine my remarks to hernia, especially the more common variety, inguinal hernia.

The satisfactory performance of this operation requires an intimate knowledge of the nerve supply to the parts, not only for the purpose of proper anæsthesia, but also that the nerves may not be injured or destroyed. Should the nerves be cut, then a recurrence of the condition may be expected, or, worse

[1] Read at a Meeting of the New South Wales Branch of the British Medical Association on May 26, 1916.

still, a weakening of the muscles, which we cannot cure; or there may be an undue and uncomfortable sagging of the scrotum.

The principal nerves in connexion with this operation are the ilio-hypogastric, the ilio-inguinal, and the genito-crural. Their anatomical position and functions can be found in any text-book on anatomy. The patient's skin is prepared in the usual way. He is made to empty his bladder, the bowels, of course, having been previously attended to.

A hypodermic injection of heroin 1/6 gr. and atropine 1/150 gr. may be given half-an-hour beforehand. Personally, I do not give this unless the patient is nervous, reserving it till four or five hours after the operation, when the effect of the local anæsthetic is wearing off. The following solution is used for anæsthetizing: 4 ounces of 0.25% novocaine solution, made in 0.04% sodium chloride, and to this add 15 drops of 1 in 1,000 adrenalin solution. The majority of hernia operations can be done with half this amount, but it is well to have a sufficient supply on hand. Two small hypodermic syringes, with fine needles, and one large syringe are required.

An intradermic injection with the small syringe is made at the highest point of the proposed incision. Through this spot then introduce the large needle into the subcutaneous tissue, and inject ½ ounce of solution; without withdrawing the needle, advance it along a line towards the pubes, and inject ½ ounce as it advances. Whilst waiting for this to act, complete the intradermal injection, always inserting the needle in a point previously injected. If this is done properly, all that the patient should feel is the first needle prick.

Now the full-length incision is made down to the aponeurosis of the external oblique. There will be hardly any bleeding, but the superficial iliac, hypogastric and pubic vessels should be caught and tied on each side of the incision. Should this not be done there is great danger of post-operative hæmorrhage after the effects of the adrenalin have worn off. In fact, any bleeding points met during the operation, no matter how small, should be clamped and tied. Expose well the aponeurosis from above the position of the internal ring to the external ring, and with the large syringe inject about ½ ounce into the inguinal canal, inserting the needle just over the internal ring. The aponeurosis of the external oblique is now slit up to above the internal ring and the edges retracted, bringing into view the ilio-hypogastric nerve. If it is thought necessary this nerve can be anæsthetized by injecting intraneurally with the small syringe. Now retract upwards the internal oblique and transversalis, and, if possible, inject the ilio-inguinal nerve high up. If this is not found easily, inject round the cord a couple of syringes of the solution and then look for the ilio-inguinal and genito-crural nerves, the former being below the cord and the latter behind These nerves are often rendered quite anæsthetic by the previous injections. When injecting a nerve it must not be picked up, but treated as it lies. The cord is now picked up and the coverings carefully divided.

The sac is usually seen standing out, white and glistening; much more so than in the ordinary operation. The prominence of the sac is due to the adrenalin. Dragging on the cord will cause pain and discomfort, and should be avoided, as also should be rough manipulations. The sac is now carefully separated from the surrounding structures and the contents of a few small syringes of the anæsthetic injected round its neck. It is now opened, and adhesions, if any, separated, and the contents returned to the abdominal cavity; omentum may be resected without causing pain. The sac is now ligatured and cut away, and the operation completed by Bassini's, Ferguson's or other methods. As regards other hernia, the same treatment applies, except that infiltration has to be depended on more than intra- or peri-neural injections.

With regard to the local anæsthetic used, novocaine takes precedence over all others, on account of its comparative non-toxicity. To get its full effect, it should be used with adrenalin in the proportions mentioned. Used in this way the anæsthesia is more quickly induced and is more prolonged. Operation may be started almost immediately, and prolonged for one and a half hours, a period of time that ought never to be required inguinal hernia operations, at any rate.

The advantages of local anæsthesia are many. In old age, when one would not care to take the risk of general anæsthesia, and in strangulated hernia, when the patient is in a low state, the method is ideal. Then there is no need to starve the patient beforehand; in fact, a light meal an hour or two before operation appears to be beneficial, and there is no reason why the patient should not have a meal at the usual time after operation. Vomiting and irritating ether coughing, which strain our sutures and tear the patient's tissues, are absent, and I have noticed that there is not that tendency to retention of urine which so frequently follows hernia operations under general anæsthesia. Another advantage is that the field of operation is not covered with blood.

In very nervous subjects morphine is required before operation, and in children light ether or nitrous oxide anæsthesia may be used in combination with the local treatment.

Reports of Cases.

LUXATIO ERECTA OF SHOULDER JOINT.

By **E. A. Falkner, F.R.C.S. (Eng.),**
Toowoomba, Queensland.

The large majority of dislocations of the shoulder are subcoracoid, in which the anterior part of the capsule is torn and the head of the bone is projected through the opening and lies beneath the coracoid process.

Under an anæsthetic reduction is usually an easy matter by either Kocher's method or the older and probably more common one of using the foot in the axilla as a fulcrum.

In the following case, however, it was found to be impossible to effect a reduction by either of these methods, and it was only after information was obtained as to the

position of the arm immediately after the accident that reduction was successfully accomplished.

An elderly miner, when walking along the railway line in the evening, fell into a culvert, dislocating his shoulder.

When brought to my surgery the following day he had an ordinary subcoracoid dislocation, with considerable ecchymosis in the axilla. An attempt to reduce it under chloroform anæsthesia was unsuccessful. He was therefore sent to Hospital, in order that further assistance might be obtained.

While waiting, his companion informed me that, when he first found the patient, the arm was extended over the head, and he had great difficulty in getting it down.

Under the anæsthetic a second time, neither the House Surgeon nor I could reduce it by the usual methods. The head of the bone was manifestly on the edge of the glenoid cavity, but was prevented from slipping in.

The arm was then extended above the head into the position in which it was found, traction was made upwards and rather forwards, with counter pressure on the acromion, the head, which was plainly felt in the axilla, was easily pressed into the cavity, and the dislocation was reduced.

Evidently this was originally a case of *"luxatio erecta,"* the opening in the capsule through which the head protruded being in the lower and slightly posterior region. By the manipulation of the companion it was converted into a subcoracoid.

In the first attempts at reduction the head was not withdrawn through the rent in the capsule, so that this structure lay between the head and the cavity preventing reduction. It was only by using the overhead method that reduction could ever have been effected.

The man was carrying a bottle of whisky under his arm, and, as he fell, his elbow was probably caught by a sleeper jerking the arm violently upwards.

Dislocations of the humerus are classified as sub-glenoid, subcoracoid, subclavicular, subspinous and supracoracoid, the *luxatio erecta* is placed under the heading sub-glenoid.

There seems to be considerable doubt as to whether a true sub-glenoid dislocation other than *luxatio erecta* really occurs, the cases that used to be called such being really subcoracoid; subclavicular is merely an exaggerated subcoracoid. These three nomenclatures might well be abolished, and the term anterior dislocation used instead, the subspinous should be termed posterior, the supracoracoid superior, with the *luxatio erecta* as a fourth variety. This classification would be much less complicated and less confusing to the student. *Luxatio erecta* is apparently extremely uncommon. In 600 consecutive cases of dislocation of shoulder at St. Thomas' Hospital, no case of this is recorded. Treves speaks of it as a most rare condition, in Holmes and Hulke's surgery, Hulke records two cases that came under his observation while at King's College Hospital. The rarity of the condition is sufficient justification for reporting the case.

Reviews.

PULMONARY TUBERCULOSIS.

"I.K. Therapy in Pulmonary Tuberculosis"[1] is the title of a little book by William Barr. This form of specific treatment of tuberculosis is comparatively unknown in this country, and, indeed, in England it has been very much neglected in favour of treatment by tuberculin. Dr. Barr, who treats the subject purely from the clinical standpoint, makes out a very strong claim for a greater recognition of this method. His results are strikingly confirmative of those claimed by Spengler, the originator of the method. These immune substances, while not free from all the dangers of tuberculin, avoid many of its disadvantages. The administration, while somewhat similar in method, is not by any means so complicated, and it is found of value in many cases unsuitable for tuberculin treatment.

Dr. Barr, who is District Tuberculosis Officer in Yorkshire, uses this treatment especially in dispensary cases. His "Summary of Cases" (47 in number) includes only ambulatory cases, so that the results are not vitiated by other factors, such as hospital or sanatorium treatment. Of his 47 patients, 37 were "well and working" at periods varying from six to twenty-two months after treatment.

The methods of administration, including gradual and rapid immunization, are most clearly set out. The effects on body-weight, sputum, fever, etc., are all tabulated, and the contra-indications and pitfalls admirably described. All phases of the treatment are most clearly illustrated by the series of charts at the end of the book.

Dr. Barr has done good service in drawing attention to a method of specific treatment, which, while it cannot take the place of tuberculin in all cases, does give more rapid results, especially in those cases where it is impossible to improve materially the environment of the patients while under treatment.

CARDIAC DISEASE.

A second edition of a small work by Dr. E. M. Brockbank on "The Diagnosis and Treatment of Heart Disease"[2] has recently been published. The first edition was intended "to put simply, clearly and in convenient pocket-book form for clinical reference the elements of cardiac auscultation for the use of students." The second edition has also chapters on cardiac irregularities and on the treatment of cardiac disease. It may be said that the purpose of the book is ably fulfilled. Dr. Brockbank's position as Clinical Lecturer on Diseases of the Heart and Dean of Clinical Instruction in the University of Manchester enables him to speak with authority on the subjects treated of in this volume, and there is little to be cavilled at in the statements made in it. That "the diagnosis of purulent pericarditis during life is quite uncertain" (p. 95) is perhaps rather pessimistic; "extremely uncertain," as it is expressed in Clifford Allbutt's system, seems to be more accurate, in view of the fact that such a condition has been recognized and treated surgically. Again, the assertion that digitalis increases high tension (p. 113) is not in accordance with the result of recent investigations. These, however, are very small points, and as the book is written in clear and concise language, shows an accurate appreciation of the value of cardiac physical signs, and is well printed and helpfully illustrated, it is likely to prove of considerable value, not only to students, but also to practitioners who desire to revive their knowledge of the fundamentals of heart pathology and to make acquaintance with some of the more recently ascertained facts of cardiac disease.

Notes on Books.

Mummery's "After-Treatment"[1] has been before the profession in three previous editions: the latest edition, the fourth, has been revised, and the chapter on shock entirely rewritten.

It embodies the teachings of Crile, and accepts his evidence in a much more whole-hearted manner than obtains in Crile's own country.

The book is just what a junior resident or senior student requires to help him over the self-conscious period of responsibility preceding or following graduation.

[1] I.K. Therapy in Pulmonary Tuberculosis, with a Summary of Cases and Forty-two Illustrative Charts, by William Barr, M.D., D.Sc., D.P.H., 1916. Bristol: John Wright & Sons, Ltd.; Demi 8vo., pp. 82. Price, 3s. 6d.

[2] The Diagnosis and Treatment of Heart Disease, by E. M. Brockbank, M.D., F.R.C.P.; Second Edition, pp. 120; Crown 8vo. Price, 3s. 6d.

[1] The After-Treatment of Operations, by P. Lockhart-Mummery, F.R.C.S. (Eng.), B.A., M.B., B.C. (Cantab.); 1916. London: Baillière, Tindall & Cox, 8 Henrietta St., Covent Garden; Crown 8vo., 275 pp., 39 figures in the text. Price, 5s. net.

The Medical Journal of Australia.

SATURDAY, SEPTEMBER 16, 1916.

The Medical Professsion and Compulsory Service.

In his memorable speech, delivered in the House of Representatives on August 1, 1916, the Prime Minister made certain things quite clear in regard to the proposals of the Government concerning reinforcements. After having shown how many trained men would be needed to keep the total number of effectives up to the required quota, he insisted most emphatically on the necessity of placing these men under training, in order that when they joined their comrades in the firing-line they might be a help and not a hindrance. He pointed out that if 32,500 men did not join the forces voluntarily during the present month, the compulsory provisions of the Defence Act would be put into force, "so that the necessary number will be under training." These provisions would operate immediately. It may be advisable to consider at this stage what the position of the members of the medical profession would be under the Act as it stands.

In Section 125 (Part XII. of the Act) it is provided that all male inhabitants of Australia (excepting those who are exempted by the Act), who have resided therein for six months and are British subjects, shall be liable to be trained. There are four sections: the Junior Cadets, from 12 to 14 years of age; the Senior Cadets, from 14 to 18 years of age; the Citizen Forces, from 18 to 25 years of age; and the Citizen Forces, from 25 to 26 years of age. Service under the paragraph dealing with the fourth group is to be limited to one registration or one muster parade, save in time of imminent danger of war. The Citizen Forces are liable to complete sixteen whole-day drills or their equivalent. According to Section 46, the Governor-General may, in time of war, by proclamation, call out the Citizen Forces or any part thereof for active service; but Section 49 limits the compulsory service to the Commonwealth. Part IV. deals with the liability of male inhabitants to serve in the Citizen Forces in time of war. According to Section 59, all British subjects resident in Australia for a period of six months between the ages of 18 and 60 years are liable to serve in the Citizen Forces. Class I. includes all unmarried males or widowers without children between the ages of 18 and 35. The Governor-General has power by proclamation to call upon all persons liable to serve. According to the Prime Minister's statement, it would appear that at first only persons between 21 and 35 years of age will be enlisted. We may therefore assume that 32,500 unmarried males or widowers without children between the ages of 21 and 35 years will be enlisted if the number of volunteers falls short of this number by the end of the current month. Certain persons are specifically exempted by the Act. Among these are "persons employed as medical practitioners or nurses in public hospitals," and "Persons engaged in any employment specified by the Regulations or by Proclamation." A further proviso is contained, according to which medical men and male nurses employed in hospitals shall not be exempted from duties of a non-combatant nature.

It has been announced in the public press that the Proclamation necessary for carrying these compulsory clauses into effect will be issued early in October, provided that the voluntary system fails. During the first part of the month the number of voluntary recruits has been far short of the required number, and there is little risk in assuming that the voluntary system will fail. This is the sum total of the definite information available. In plain language, it means that on October 1, 1916, medical practitioners who are under the age of 35 years and who are unmarried or are widowers without children may be liable, like other citizens, to be enlisted. The only exceptions are those who hold resident hospital appointments, and even these may be called upon to serve in a non-combatant capacity. It is, however, unlikely that the authority will make use of members of the medical profession to swell the number of combatants, since a large army necessitates the employment of a considerable number of medical officers. We may go one step further, and assume that the enlistment for training purposes of

the 32,500 men will be followed by the introduction of legislative compulsion for these men to serve abroad. Pending the announcement of the policy of the Government in regard to the enrolment of members of the medical profession, it is impossible to forecast what doctors belonging to Class I. should do.

On the introduction of compulsory service in England, the War Office announced that all doctors of military age who had undertaken to accept a commission in the Royal Army Medical Corps, if offered one, would not be taken for general service. Many medical men had enrolled under the scheme of the Central Medical War Committee, while others had offered their services direct to the War Office. These men were instructed to return the notice paper received from the recruiting officer, together with their certificate of enrolment or the acknowledgement from the War Office of provisional acceptance, should they be served with a notice paper. Others were advised to enrol their names by notifying the Central Medical War Committee that they were prepared to accept a commission if called upon. Failure to enrol rendered practitioners liable to be taken for general service, but they had the right of appeal for exemption. The Central Medical War Committee is a powerful body of medical practitioners, which has received the official recognition of the War Office, and its services are utilized largely for the purpose of the enrolment of members of the medical profession. It is to be hoped that a similar body will be set up in each of the Australian States for the same purpose. A strong Committee of the leaders of the profession could readily be formed, and its assistance in the complex work of making the best use of the available men to serve as medical officers under the compulsory scheme would be invaluable. Moreover, it must be remembered that a Committee of this kind would be in a better position to select practitioners in the requisite numbers with the least disturbance of civil practice than the military authority would be.

VENEREAL DISEASE IN WAR TIME.

An Order of the Local Government Board of England, dated July 12, 1916, is engaging the attention of the British Medical Association in England, and will doubtless be regarded as a highly important document in the Commonwealth. By this Order the Local Government Board have given effect to the principal recommendations of the Royal Commission on Venereal Diseases. It is true that the action is taken as an emergency measure under the *Public Health Act*, of 1913, the conditions of war being regarded as the emergency necessitating it. In the various Australian States this question has been considered by responsible Ministers, and Western Australia has led the way by the introduction of specific legislation, not intended to meet any special conditions appertaining to war, but aiming at the reduction of venereal infections. In Western Australia the members of the British Medical Association, after obtaining some modifications of the original clauses through the good services of the Honourable Athelstan Saw, now a Minister in the Wilson Cabinet, expressed their concurrence with the provisions of the measure. More recently this question has occupied the attention of the Ministries in every other State, and particularly of the Federal authorities. A Bill is now before the Victorian Parliament. The provisions of this Bill are similar to those of the Western Australian Act. In some other States analogous measures are to be presented to Parliament. The Victorian Branch of the British Medical Association have considered and approved the principle of confidential notification and compulsory treatment. We understand that the principle of notification is not favoured by the profession in South Australia. Elsewhere no definite pronouncements have yet been made by the members of the medical profession. It may therefore be of importance to keep the scheme of the English Local Government Board in mind, although it may be found that proposals made in the old country are not necessarily wiser than those of Australian origin, and even if applicable to English conditions, they might be unsuitable for the conditions obtaining in the Commonwealth.

The essential factors of the Order and of the defining regulations are the provision for the whole community of laboratory facilities for diagnosis without cost to either the patient or doctor, and the provision of adequate and skilled free treatment of all persons affected with venereal disease. The

laboratory work is to be conducted by skilled bacteriologists, and we are informed that it is not proposed to create new laboratories, but merely to utilize the existing institutions for this new purpose. In the endeavour to minimize the incapacitating effects of venereal diseases among British troops, and thus to increase the efficiency of our army, no considerations of a personal nature should be allowed to stand in the way. It may be that Australia will be called upon to regard the prompt treatment of venereal diseases as an emergency measure rendered necessary by the war. This aspect of the question does not appear to have been considered seriously in the Commonwealth, although we hold that the urgency of the problem has been doubled by the fact that we have the high duty of providing a not insignificant force to beat the German foe. Should the question be regarded solely as a civil one, the advisability of limiting bacteriological work to State institutions or to State-aided laboratories may be challenged. The value of the detection of the *spirochaeta pallida* and of the Neisserian coccus, and the determination of the biological reactions indicative of syphilitic infections cannot be disputed, provided that the investigations are carried out by thoroughly competent persons. Whether the degree of skill in this class of work is greater among Governmental officials than among free-lances is at least open to argument. The principle that the State shall pay for these investigations and not the patient is probably a wise one from the point of view of the hygienist, although common-sense would lead us to the conclusion that a man of means, who infects himself, should not be assisted by the State to get rid of his disease.

The second provision is that of free treatment for the whole community. Here again we have to distinguish between a war measure and one aiming at the reduction of infection among the civil population. The profession in the Commonwealth would not oppose any measure which could be shown to be necessary for the control of so damaging a disease as syphilis, and indeed would work such a scheme willingly and energetically, even if this meant considerable pecuniary loss. But before the profession will agree to assist in a scheme of this kind, it must be shown that the selected scheme and no other will achieve the desired end. Under the Western Australian Act, every person suffering from a venereal disease is compelled to place himself under the care of a medical practitioner, and penalties are provided for those who fail to obey. There is no special provision for free treatment. When a person is poor, he can obtain his attendance in one of the charitable institutions. The hygienist is only concerned with the question: which scheme offers the best prospects for effecting a proper control over infected persons. The proposals of the Local Government Board are based on the belief that infected persons can be induced to obtain treatment, provided that they are not called upon to pay for it. It might be asked whether a modification of this scheme would not offer equally good prospects. The patient might be tempted to seek treatment from registered medical practitioners under the ordinary conditions of practice, and when the patient is unable to pay, the State or local authority might be made responsible for the doctor's fees. It is obvious from the details published in regard to the English scheme that the practitioner is to play but a small part in the treatment, and that the main factor is to be the clinic, at which medical practitioners and students are to be encouraged to attend for the purpose of becoming familiar with modern methods of diagnosis and treatment. It is unnecessary to go deeply into the details of the scheme, for the essential point is one of general principle. If the question: Are the inducements strong enough to attract the majority of infected persons? cannot be answered in the affirmative, it would probably be wise to refuse the English scheme or its modification altogether, and to substitute either the provisions of the Western Australian Act or some other scheme involving compulsory treatment.

ANTERIOR POLIOMYELITIS.

The progress of the New York epidemic of acute anterior poliomyelitis is being watched by epidemiologists with close scrutiny, and even the general public has shown some interest in it, probably because of the sensational nature of the cables and of the large number of the victims. Americans, and especially American journalists, have the knack of doing things well and of establishing records each time. There is a striking paucity of reliable information regarding this epidemic, at all events as

far as important details are concerned. From January 1 to May 31, 1916, there were but seven cases all told. In June, the epidemic began with two cases on the 6th, and by the end of the month the total had reached 331. The total for the first half of July was 1,920, thus giving a grand total of 2,251 cases in 40 days. We have no further official figures; but from the cables published, it would seem that this total was raised during the following four weeks to 6,400. The daily incidence reveals that, from the 20th, the epidemic was established. A curve plotted with the number of fresh cases in the abscissa and the days in the ordinate is a little irregular, and consists of a gradual rise up to July 4, and a succession of steep rises during the following ten days. If the curve be plotted with the number of fresh cases each seven days, a better conception of the course of the epidemic is gained. It is probable that the notification of fresh cases is not always so prompt that the daily index is quite reliable. Of the 2,251 cases, 1,087 were "verified" officially by the New York Board of Health. We are at a loss to understand what this verification consisted in, since it is not probable that the medical officers attached to the Board are as skilled in diagnosis as are the practitioners in the city. We learn that the patients were nearly all under ten years of age. No less than 85% of the "verified" patients were under five years of age, and 11.5% were under one year of age. It is stated that in 50% of the cases the disease was of an abortive type. In between 5% and 8% of the cases the patient was a member of a family in which a previous case had occurred. Several instances of three cases in the same family have occurred. It appears that the homes of the patients were frequently dirty and in an unsatisfactory condition from a sanitary point of view. On the other hand, the disease has attacked the white population almost exclusively. There are no details available in regard to other epidemiological points. The epidemic is a severe one. The case mortality works out at just above 19%. There appears to be a tendency for the disease to become slightly more severe as the epidemic progresses. One other point of interest is contained in the report of the New York Board of Health. It is stated that complete recoveries are comparatively rare. We presume that this applies to cases which are not of the abortive type.

According to an editorial article in *The American Journal of Orthopedic Surgery*, of August, 1916, the treatment consists in rest and immobilization, without any medication. It has been reported that Simon Flexner has introduced some form of serum treatment; but the details are not yet to hand. Isolation appears to be carried out with rigour, and the advanced Board of Health is assuming that the disease is transmitted by carriers of the unknown organism, and therefore are controlling contacts. This may be wise, but it is obviously devoid of all scientific foundation, and, in the absence of epidemiological evidence that the healthy are capable of passing the disease on to others, it appears to be an exaggeration in precaution.

THE HOME OF THE SOUTH AUSTRALIAN BRANCH.

In this issue will be found the second annual report of the British Medical Hall Company, Limited, a company formed for the purpose of acquiring for the South Australian Branch of the British Medical Association a home of its own. When the members determined to take this step it was arranged that 500 preference shares at £10 each and 200 ordinary shares at the same price should be issued, so that, with a capital of £7,000, the scheme might be steered through the first few years until the initial cost could be covered by accumulated funds. A glance at the profit and loss account will show that, owing to depression of trade, the renting of rooms and the letting of the Lister Hall have produced less income than was secured in the first year, and that the Directors require all the support available to enable them to weather the bad times. Of the future of the Home of the Branch, no one with any knowledge of the conditions can have any doubt. It is merely a matter of time and patience. One fact, however, stands out prominently. The members are not supporting the Directors as they should. No less than 281 shares have not been taken up. This represents £2,810 in hard cash, which the Directors could use with advantage. We venture to suggest that a more general interest in the affairs of the Branch should be exhibited. We trust that the appeal of the Directors may not fall on deaf ears, and that within the next twelve months the majority of the 162 members who do not hold any shares in the Company will apply for the unallotted 281 shares.

Naval and Military.

The 208th casualty list, which was issued on September 9, 1916, contains the names of Captain W. Fenwick as being "ill in hospital." In the combined 209th and 210th lists, which were issued on September 11, Captain W. Fenwick's name appears under the heading "wounded," and a notice is affixed to the effect that this officer was "previously reported ill." Captain C. C. Ross is named among the "seriously ill in hospital" in the 208th list. We regret to note that in the 206th and 207th lists, issued on September 6, 1916, under progress reports it is announcel that Lieutenant-Colonel H. K. Bean is again dangerously ill. Captain Stuart M. Graham is reported in the 209th and 210th lists as wounded and seriously ill. It is with deep regret that we learn that a cable has been received in Sydney announcing Captain Graham's death.

The following has appeared in the *Commonwealth of Australia Gazette*, No. 112, under date of August 30, 1916:—

Australian Military Forces.

Change in Designation of Appointment.

His Excellency the Governor-General, acting with the advice of the Federal Executive Council, has been pleased to approve of the following changes, etc., in connexion with the Australian Military Forces, *viz.*:—

Australian Army Medical Corps—

Honorary Major (temporary Lieutenant-Colonel) J. H. L. Cumpston, Principal Health Officer on Staff of Director-General, Australian Army Medical Services at Head-Quarters, to be Staff Officer on Staff of Director-General, Australian Army Medical Services at Head-Quarters. Dated 1st July, 1916.

The following has appeared in the *Commonwealth of Australia Gazette*, No. 118, under date of September 7, 1916:—

Army Medical Corps.

6th Field Ambulance.

To be Quartermaster and Honorary Major—
Quartermaster and Honorary Captain O. J. Lawson. Dated 16th May, 1916.

7th Field Ambulance.

To be Quartermaster and Honorary Captain—
Quartermaster and Honorary Lieutenant J. W. Blacklock. Dated 1st May, 1916.

Public Health.

THE HEALTH OF NEW SOUTH WALES.

The following notifications have been received by the Department of Public Health, New South Wales, during the week ending September 2, 1916:—

	Metropolitan Combined Districts. Cs.	Dths.	Hunter River Combined Districts. Cs.	Dths.	Remainder of State. Cs.	Dths.	Total. Cs	Dths.
Enteric Fever	6	0	0	0	4	0	10	0
Scarlatina	74	1	4	0	32	0	110	1
Diphtheria	76	3	2	0	46	0	124	3
C'bro-Sp'l Menin.	6	1	1	0	7	0	14	1
Infantile Paralysis	1	0	1	0	0	0	2	0
Pul. Tuberculosis	28	14	0	0	†		28	14
Variola	0	0	0	0	1	0	1	0

† Notifiable only in the Metropolitan and Hunter River Districts.

THE HEALTH OF VICTORIA.

The following notifications have been received by the Department of Public Health, Victoria, during the week ending September 3, 1916:—

	Metropolitan. Cs.	Dths.	Rest of State. Cs.	Dths.	Totals. Cs.	Dths.
Diphtheria	82	1	47	3	129	4
Scarlatina	28	0	7	0	35	0
Enteric Fever	0	0	0	1	0	1
Pulmonary Tuberculosis	25	4	6	13	31	17
C'bro-Spinal Meningitis	16	—	17	—	33	—

INFECTIVE DISEASES IN QUEENSLAND.

The following notifications have been received by the Department of Public Health, Queensland, during the week ending September 2, 1916:—

Disease.	No. of Cases.
Scarlatina	5
Erysipelas	4
Pulmonary Tuberculosis	8
Diphtheria	19
Varicella	42
Enteric Fever	5
Cerebro-Spinal Meningitis	2
Malaria	12

THE HEALTH OF TASMANIA.

The following notifications have been received by the Department of Public Health, Tasmania, during the week ending September 2, 1916:—

Disease.	Hobart. Cases.	Launceston. Cases.	Country. Cases.	Whole State. Cases.
Diphtheria	1	4	15	20
Scarlatina	1	0	2	3
Puerperal Fever	0	1	0	1
Pulmonary Tuberculosis	0	0	1	1

INFECTIVE DISEASES IN WESTERN AUSTRALIA.

The following notifications have been received by the Department of Public Health, Western Australia, during the week ending August 19, 1916:—

	Metropolitan. Cases.	Rest of State. Cases.	Totals. Cases.
Diphtheria	8	5	13
Pulmonary Tuberculosis	10	2	12
Erysipelas	1	0	1
Pyæmia	0	1	1

INFECTIVE DISEASES IN SOUTH AUSTRALIA

The following notifications have been received by the Central Board of Health, Adelaide, for the week ending August 26, 1916:—

	Adelaide. Cs.	Dths.	Rest of State. Cs.	Dths.	Totals. Cs.	Dths.
Morbilli	12	0	199	0	211	0
Pertussis	13	0	52	0	65	0
Diphtheria	3	1	31	0	34	1
Pulmonary Tuberculosis	2	7	7	7	9	14
Scarlatina	0	0	3	0	3	0
Erysipelas	0	0	5	0	5	0
C'bro-Spinal Meningitis	2	3	2	0	4	3
Enteric Fever	0	0	1	0	1	0

THE HEALTH OF AUCKLAND.

The following notifications have been received from the District Health Officer, Auckland, during the month of August, 1916:—

	City. Cases.	Suburbs. Cases.	Country Districts. Cases.	Total Cases.
Scarlatina	12	28	43	83
Diphtheria	10	23	19	52
Enteric Fever	1	1	28	30
Pulmonary Tuberculosis	9	2	14	25
Septicæmia	2	1	2	5
C'bro-Spinal Meningitis	1	2	0	3

TASMANIAN CONSUMPTIVES' SANATORIUM.

The Annual Meeting of subscribers of the Tasmanian Consumptives' Sanatorium was held on July 31, 1916, in Hobart, when His Excellency the Governor moved the adoption of the annual report and balance-sheet. Notwithstanding the difficulty with which the Committee had to contend, the work of the Sanatorium was extending and becoming more valuable to the community. As Dr. Ireland pointed out, it was unfortunate that many persons came to the institution as a last resort. No doubt public education would lead to an improvement in this respect.

In the annual report itself an account of the various steps taken to increase the income of the Sanatorium is given. These steps have been attended by a considerable amount of success. The number of patients treated during the year ending June 30, 1916, was 100. There were 16 patients in the Sanatorium on July 1, 1915, and 84 were admitted during the year. The treatment was not completed in 31 cases.

From the medical report it appears that 68 patients were discharged during the year. Of these, 38 were regarded as "arrested cures." Eight of the patients were greatly improved, 12 were unimproved, and 10 left prematurely for various reasons. Eliminating these 10, there remain 58 patients in whom the course was completed. Of these 58 infections, 38 were arrested and 46 were either arrested or considerably improved. The medical officers regard these results as most gratifying. They deal briefly with the essentials of sanatorium treatment, and again urge that a farm should be established in connexion with the Sanatorium.

The income of the institution includes £2,100 received as donations and subscription, £285 as maintenance fees and sundry sums, bringing the total from patients and the public up to £2,430, while the Government subsidy was only £400. The balance brought forward from the preceding year was £160, while £430 was carried over to the next account.

Abstracts from Current Medical Literature.

DERMATOLOGY.

(99) Diphtheritic Whitlow.

J. D. Rolleston (*Brit. Journ. Dermat.*, April-June, 1916) reports a case of diphtheritic whitlow in a boy, æt. 5. Antitoxin was given for severe faucial diphtheria, and the throat cleaned. Then there followed a temporary urticarial eruption, dilatation of the heart, and enlargement of the liver, and the voice became nasal. On the thirty-second day of the disease he developed a transient right hemiplegia and aphasia. At the same time bullæ, resembling burns, appeared on the index, middle and ring fingers of the left hand. These did not respond to antiseptic treatment, and, after being opened, granulations, with a profuse discharge, made their appearance. Sloughing then took place, especially involving the middle finger, with loss of portion of several nails. Fever and constitutional disturbances were absent, and pain was only present on dressing. As membrane was absent, the lesions were indistinguishable from ordinary severe whitlow. Two and a half months elapsed before it was suspected that the lesion might be diphtheritic, and then cultures showed diphtheria bacilli. Antitoxin was given, and the lesions healed in a week. Later, the fingers showed some deformity, limitation of movement, and loss of nail substance. Out of a series of 2,600 cases at the Grove Hospital from 1902 to 1914, thirty cases showed cutaneous involvement; but this was the only case in which the author had seen a lesion of the skin manifesting itself after the throat had cleared. He looked upon these whitlows as being diphtheritic *ab initio*; but, even if secondary to other infection, he considered the Klebs-Löffler bacillus as playing an important part in the persistence of the lesions, as shown by their rapid healing after injection of antitoxin. It is probable that many cases of obstinate whitlow occurring in hospital residents and nurses are diphtheritic in origin.

(100) Syringoma.

Norman Paul (*Brit. Journ. Dermat.*, April-June, 1916) records a case of syringoma, with remarks by H. G. Adamson. The patient, a male, æt. 46, had situated over the left side of the sternum twenty-five firm, raised growths. They were sessile, intimately associated with the skin, and moved with it. The largest was 2.5 cm. across and raised 1.5 cm. The bases of the smaller nodules coalesced, to form an infiltrated plaque. Several of the growths had been present for twenty-five years, whilst a number appeared in the past three years. The colour varied from dark blue to pink. Dyspepsia was present, and lately the patient observed that, coincident with attacks, a new growth appeared, and was painful. On excision, the blue colour was found to be due to blood, which filled the largest, as well as some of the smaller, cysts. The microscopical examination showed the growth to be situated in the corium, surrounded by fibrous tissue, and to be derived from the sweat glands, *i.e.*, syringoma. Adamson remarks that the case excites interest on account of its unusual character. After reviewing the group of new growths, which include *adenoma sebaceum, epithelioma adenoides cysticum, lymphangioma tuberosum multiplex* of Kaposi, syringoma, etc., all of which he considers are probably derived from embryonic cell rests, as conceived by Cohnheim, he concludes that this case should be placed amongst the sweat gland tumours described as syringoma. He calls attention to the fact that the photograph and coloured drawing in Thimm's case of "*hypertrophische u. multiple Cyst-adenomata der Schweissdrüsen*" reproduces almost exactly the appearances of Paul's case, and that the microscopical sections seem to show many similar features.

(101) Pityriasis Lichenoides Chronica.

F. Wise has had an opportunity of studying eight cases of the various types of parapsoriasis, and has diagnosed five of them as *parasoriasis en plaque* and three as *pityriasis lichenoides chronica* (*Journ. Amer. Med. Assoc.*, July 15, 1916). He publishes the details of one of the latter cases, in which the eruption was unusually widespread. The patient was 58 years of age, and was free from all evidence of syphilis. The eruption had begun two and a half years before on the anterior surface of his forearm, in the form of small, réd, round and oval papules. Similar lesions developed all over the body, with the exception of the neck, face, scalp, palms and soles. There was no eruption on the mucous membranes. The macules and papules varied in size from a pin-head to a lentil. There was a considerable amount of itching. The condition was diagnosed as a widespread lichen-planus, and was treated with arsenic, with avail. Autogenous serum injections did not produce any change in the skin lesions. The Kromayer light effected a temporary fading of the papules. The distribution of the lesions, their colour, consistence, and configuration were determining factors in the diagnosis. Wise points out that the oval and rounded outline of the papules, the absence of umbilication in the majority of the lesions, the fine, whitish, adherent, linear scaling (Wickham's striæ) were points against the eruption being lichen planus. He adduces further evidence, including the histological appearances, in support of the diagnosis of *pityriasis lichenoides chronica*.

(102) The Light from the Simpson Arc Lamp.

Alistair MacGregor (*Arch. Radiol. and Electrotherapy*, April, 1916) details the history of the discovery of the Simpson arc lamp and the composition of the necessary electrodes. It is pointed out that the Simpson lamp owes its special properties to the electrodes, which are not composed of gas carbon, but of a mixture of certain metallic ores, the chief constituent being tungstate of iron and manganese. The physical properties of the light are touched upon from a spectroscopical and photo-electrical point of view. It is shown that the light from this agent is not only very rich in ultra-violet rays, but that it also contains rays of shorter wave length than does the light from a carbon arc. The nomenclature of this agent is discussed; it should not be known as the "S rays," etc., as there is no evidence of the existence of any new form of radiation. The technique is dealt with. The author concludes with a resumé of the types of cases treated and the results gained.

(103) Experiments with a Coolidge Tube.

Some very interesting experiences made with the Coolidge tube are described by W. E. Schall in the *Journal of the Röntgen Society*. He finds that several curious phenomena, notably that, with this tube, to get the same effect on an X-ray plate, a much bigger milliampère second exposure has to be given than with the ordinary tungsten tube. In addition, the barium platino-cyanide pastilles turn much more quickly with the Coolidge tube. He suggests that the radiation from the Coolidge tube is very heterogeneous, and that an increase in the number of milliampères passed through the tube greatly increases the hardness of the rays. Owing to the way in which the passage of the cathode rays is facilitated, a slight increase in the electromotor force on the poles of the tube, necessary to raise milliiampèrage say from 3 to 8 milliampères, is sufficient to increase the speed of the cathode rays to such a degree that an X-radiation results with a penetrating power somewhere in the neighbourhood of that of gamma rays.

(104) Tuberculosis of Bones and Joints.

In dealing with tuberculosis of the bones and joints, R. W. A. Salmond (*Arch. Radiol. and Electrotherapy*, April, 1916) discusses in detail this common condition. He deals briefly with the pathology and the usual sites of the disease, and divides the condition into (1) that of primary bony origin in the marrow, and (2) primary synovial origin. The general radiographic appearances must be considered with the clinical examination, etc. The findings vary according as to the original site. In the first type there is an area of rarefication due to absorption of tubercular tissue by granulation tissue; this is replaced later by caseation, etc. There is also general rarefaction of neighbouring bones, due to absorption of lime salts, etc. If the disease starts in the synovial membrane, in the earliest stages no changes are seen in the skiagram. Later, rarefaction of bones, swollen, dense, soft, articular structures, and irregularity of the joint sur-

faces, are met with as the bone is absorbed. Swollen synovial membranes cannot be distinguished from serous and purulent effusions with any certainty from skiagram alone. The findings, according to type of bone and part of bone involved, are next discussed, and lastly the local lesions in the spine, sacro-iliac synchondrosis, hips, etc., are taken in detail, with the corresponding differential diagnosis.

BIOLOGICAL CHEMISTRY.

(105) Effects of Exclusive Diets.

E. Weill and G. Mouriquand have made a series of communications on the effects of exclusive diets on nutrition (*C.R. Soc. Biol.*, Paris, December, January and April, 1916). It is now known that an exclusive diet, composed of a single food, or of a limited number of foods, is liable to give rise to grave disorders, and even to death. Such diets are asserted to induce scurvy, beri-beri and certain infantile dystrophies. The unique character of the food does not in itself account for these disorders, since an infant thrives on a diet of milk, and certain people and animals can live exclusively upon potatoes. The authors have found that pigeons thrive well on a diet made up wholly of rice, barley, wheat or maize, provided that the outer covering of the grain is not removed. Similar pigeons, or even the same pigeons, fed on the same grains from which the external layers have been completely removed, show symptoms either of poly-neuritis or of cerebellar disorder, and these pigeons die if the diet is continued. When barley is only partially freed from its covering, so that one-fifth of the bran remains, the barley serves as a satisfactory food for pigeons. The authors have made the interesting discovery that heating the whole grains of barley to 120° C. in the autoclave destroys the power of the barley to preserve health. Such heated barley gives rise to the polyneuritic or cerebellar symptoms in pigeons which are produced when these birds are fed on polished grain. The authors have likewise shown that cats can survive for long intervals of time when they are fed on raw flesh or frozen meat, but that the cats develope cerebellar symptoms when they are fed upon meat which has been heated in the autoclave for thirty minutes at 120° C. The authors point out that these facts demonstrate that it is not the exclusive nature of the diet, but certain deficiencies produced mechanically or by heating which give rise to these disorders of nutrition. The authors have extended these observations by examining the effects of feeding pigeons with polished rice heated to 120° C. They find that pigeons fed entirely upon polished rice do not manifest signs of illness until the twenty-fifth to the thirtieth day of exclusive feeding. When, however, the same food is heated, the pigeons develope the same symptoms between the ninth and sixteenth days of exclusive feeding. These effects have been confirmed with pearl barley. Pigeons fed on raw pearl barley manifest symptoms about the fiftieth day, while pigeons fed on the same barley after it has been heated become ill about the thirty-first day. The authors regard these effects as due to sterilization of the food. They believe that certain vital or "living" qualities are destroyed by the prolonged heating of the food. These qualities they ascribe to ferments, and they hold that the destruction of the ferments corresponds with the loss of complete nutritional powers by the food.

(106) Sterilization of Drinking Water.

E. Doyen and Toda have studied the preparation of potable water by the successive addition of hypochlorite of water and peroxide of hydrogen (*C.R. Soc. Biol.*, Paris, March, 1916). The water has been contaminated with *bacillus typhosus* and *bacillus coli communis* in the proportion of 20,000 germs to the cubic millimetre. The addition of one part of chlorine per million of pure water sterilizes the liquid in one minute. When the water contains much organic material, *e.g.*, river water, three times as much chlorine is required to sterilize the water in four minutes. The excess of chlorine can be removed by the addition of peroxide of hydrogen until no more gas is disengaged. The authors are of opinion that the addition of hydrogen peroxide is preferable to the use of hyposulphite of soda to destroy the excess of chlorine. Water so treated has neither odour nor taste.

The same authors have tested the action of chlorinated lime and permanganate of potash for the same purpose (*C.R. Soc. Biol.*, Paris, April, 1916). The chlorinated lime is more efficient in acid solution. The authors recommend the use of a small quantity of hydrochloric acid with the bleaching powder. They remove the excess with hydrogen peroxide. Permanganate of potash can be used in acid solution, but the quantity required is large. Twenty-five parts per million are needed for contaminated water to ensure sterilization. The subsequent addition of hydrogen peroxide decolourizes the water.

(107) Chemical Stimulation of Nerves.

J. Loeb and W. F. Ewald have continued their studies on the chemical stimulation of nerves (*Journ. Biological Chemistry*, July, 1916). They have shown that a salt like ammonium chloride, which does not stimulate nerve, can be made into a powerful stimulant for nerve by substituting ethyl groups for the hydrogen atoms of ammonium. Tetra-ethyl ammonium chloride is a more powerful stimulant than sodium citrate. There is little difference in the exciting power of the chloride, hydrate and citrate of the substituted ammonium radicle. This shows that the exciting power is due to the cation and not to the anion. The stimulant power of the radicle can be inhibited by the presence of calcium ions. The same concentration of calcium ions is required to inhibit the stimulation of tetra-ethyl ammonium as for the inhibition of sodium citrate. The irritability of the nerve remains unaltered when the stimulating action of the substituted ammonium is neutralized by the addition of a sufficient amount of calcium salt. The substituted ammonium can only act as an excitant to a nerve when the irritability of the nerve has not been lowered. When the irritability has been lowered the substituted ammonium has no effect on the nerve. A similar result is noted with sodium citrate. The addition of calcium to a solution of the tetra-ethyl ammonium base lengthens the latent period when the concentration of the calcium is not sufficient to inhibit the excitation completely. These results negative the theory of Matthews that cations depress, while anions stimulate nerve.

(108) Extracts of the Pituitary Gland.

F. Fenger has examined the composition and physiological activity of the pituitary body of cattle (*Journ. Biological Chemistry*, July, 1916). The glands were collected from calves and adult cattle. Among the adult cattle, material was obtained from castrated and entire animals. The physiological activity was compared with that of solutions of pure beta-imidoazolethylamine. The physiological activity of the posterior lobe of the pituitary gland is somewhat higher during the period of growth of the animal. The infant gland possesses more inorganic phosphorus than the anterior or posterior lobes of mature animals. The physiological activity was tested on the isolated uterus of the guinea-pig. The substance acting on the uterus can be extracted from the posterior lobe of the gland by water. Active extracts can also be prepared with acidulated methyl or ethyl alcohol. The acidulated extract, made with methyl alcohol, is twice as active as the aqueous extract. It is also more stimulating than the pure beta-imidoazolethylamine.

(109) Ferments in Spermatic Fluid.

E. Iwanow and N. Andreew have examined the ferments in the spermatic fluid of the dog (*C.R. Soc. Biol.*, Paris, January, 1916). They found that the presence of prostatic fluid rendered the movements of the spermatozoa more active than under other condition. When the prostatic fluid was heated its stimulating properties were destroyed. The authors have been thus led to ascribe these stimulatory effects to ferments. They have found a number of ferments present in the prostatic fluid. Among the oxidase ferments present they have recognized tyrosinase, peroxidase, catalase and phenolase, and they have estimated the amounts of these ferments. Trypsin is present, and an antitryptase in small amount. Monobutyrase has also been identified. Nuclease is apparently absent. Pepsin and erepsin are also wanting.

British Medical Association News.

SCIENTIFIC.

A meeting of the New South Wales Branch was held on July 28, 1916, at the B.M.A. Building, 30-34 Elizabeth Street, Sydney, Dr. Sinclair Gillies, the President, in the chair.

Dr. P. L. Hipsley read a paper giving a resumé of 760 consecutive midwifery cases met with in a general practice.

The text of this paper will be found on page 221 of this issue.

Dr. J. C. Windeyer read a paper dealing with some points in the conduct of normal labour. The text of this paper will be found on page 223.

Dr. Fourness Barrington read a paper on the prophylactic induction in normal pelves. The text of this paper will be found on page 224.

Dr. E. H. Binney opened the discussion by remarking that he had listened to the three papers on this all-important subject with great interest. He asked Dr. Hipsley whether, in the cases of raised temperature a few days after delivery in which light curettage had been carried out, the fever might not have been coincident with the beginning of secretion of milk.

Dr. A. J. Spiller Brandon considered that it was a matter of indifference how fractures of the thigh in infants were put up. The use of a straight splint, with the leg in the air, had disadvantages. He spoke of a case in which he had put the limb up by fastening it against the abdomen. A considerable amount of thickening resulted. On the advice of another medical man the parents wanted to have the bone refractured, but he persuaded them to delay, since there was no guarantee that the second setting would yield a better result. After the lapse of some time, all the thickening disappeared, and the child had grown up to be one of the most graceful dancers in Sydney. Referring to the practice of curetting for febrile conditions in the puerperium, he held that it was advisable to avoid the use of the curette in obstetrical cases, if possible. In hospital practice he had made the worst experience of its use, and had abandoned it. He regarded manual exploration as much safer and better.

In turning to Dr. Barrington's proposal to induce labour at maturity, he considered that the obstetrician would have to be sure of his dates. Dr. Barrington had spoken of a pregnancy being 28 days over time. How would it be possible to fix the exact date when pregnancy had taken place? He was doubtful whether the size of the child was a safe index. He dealt with Dr. Windeyer's suggestion to give morphine and scopolamine. He had used it three times, and on each occasion had had great difficulty in reviving the child. The infant appeared to get a full dose of morphine, and to suffer from morphine poisoning. He had therefore abandoned the method.

Dr. L. R. Parker also dealt with the question of morphine-scopolamine narcosis. He prefaced his remarks by stating that Nature had sent her babies into the world with a poor provision of life. He had tried giving morphine and scopolamine, and had had endless difficulty with the babies. Since he had left off using it he had no need to perform artificial respiration. In regard to fever following the birth, he stated that his practice consisted in vaginal douches and rarely intra-uterine douches. At times it was advisable to swab out the uterine cavity with gauze fixed at the end of a sound. When the temperature kept up, the urine was often at fault. A pyelitis of some description frequently was the cause of the fever. He made it a rule to examine the urine in these cases. He asked whether Dr. Hipsley had noticed any association between early sitting up of the patient and the behaviour of the temperature. Ever since he had adopted the practice of sitting his patients up early he had had no necessity of using a gauze swab in the uterus. At the end of the second day the patient was allowed to sit up for a few minutes on two or three occasions. He argued that the upright position was the normal position for keeping the uterus normally anteflexed. The uterine ligaments were only able to suspend the organ in the upright posture. Moreover, the upright position favoured drainage. His anxiety about the patients had been definitely lessened since he had adopted this practice.

Dr. T. W. Lipscomb dealt with the question of giving morphine and hyoscine. He pointed out that maternity work was the worst-paying work the suburban practitioner had to undertake. He held the opinion that morphine and hyoscine had revolutionized suburban practice. He was in the habit of giving ¼ grain of morphine and $^1/_{100}$ grain of hyoscine to primiparæ. This was followed by three or four hours' good sleep, and when the doctor returned later on he found the head on the perineum. In an experience of over 100 cases he had found it unnecessary to give more than one injection, with two exceptions. The only time he had had any trouble was when the second injection was given within three hours of the birth. He claimed that it was a comfort to the patient, doctor and nurse. On the other hand, he was indisposed to adopt continuous "twilight sleep." Referring to Dr. Barrington's paper, he admitted that it was an "eye-opener" to him. He was inclined to think that difficulty would be experienced in determining the definite period of the pregnancy. He thought that much education would be required. The paper deserved a great deal of thought.

Dr. Ralph Worrall spoke very strongly against the use of pituitrin in the first stage. In regard to gloves, he called attention to the fact that rough gloves took three times as long to sterilize as smooth-surfaced gloves. In the next place, he referred to Dr. Isbister's splint for the treatment of fracture of the femur as being the best treatment. He disapproved of putting the leg up vertically, as this procedure nearly always caused infants to cry. He held that an immense amount of damage was done by the repeated application of intra-uterine douching. If the curette were used properly in sapræmic cases excellent results were obtainable. He did not think that the bag was always necessary for dilating the cervix. Packing the cervix with gauze was an excellent method, but if there was great hurry he advised the use of de Ribes' bag.

He strongly favoured the necessity of supervision, which had been so ably advocated by Dr. Windeyer. He maintained that it was impossible to obtain good results unless sufficient time were expended, and if the practitioner gave up much time, there must be adequate payment. He held that all extra visits in maternity cases should be paid for. He believed that trouble in parturition was usually due to one of three causes, *viz.*, (1) The want of supervision beforehand, (2) the improper treatment of the third stage, and (3) the application of forceps before the cervix was fully dilated. Referring to Dr. Barrington's paper, he held that the size of the fœtus should always be measured by means of a steel tape, which did not stretch. He regarded it inadvisable to measure from uncertain points, such as the umbilicus and the pubic hair. These points varied in different patients. On the other hand, the pubes represented a fixed point, as did the highest point of the fundus. He measured the distance between these two points in centimetres, and divided the result by 3½, which gave him the duration of pregnancy in months.

Dr. E. Ludowici thought that the value of pituitrin would be enhanced if practitioners would use discretion in regard to dosage. At times one half or one quarter of the quantity contained in the ampoule yielded better results than the full dose. Turning to the question of fever, he was of opinion that the *bacillus coli communis* was a frequent cause of pyelitis complicating the puerperium. It was necessary to obtain a catheter specimen of urine in all febrile cases, and especially in pyæmia. He had adopted the principles which Dr. Barrington had advocated, but admitted that it was not easy to estimate the duration of pregnancy. It was, however, frequently possible to tell when a primipara was beyond her time. The fœtal head usually became fixed toward the end of the pregnancy; if the whole fœtus sank, he took it that full term had been reached. On the other hand, when the uterus increased in size again, and especially when the patient became short of breath, she had gone beyond her time. Referring to the means of inducing labour, he stated that he plugged the cervix with gauze while the patient was lightly anæsthetized.

Dr. George E. Armstrong stated that he had listened with interest and profit to the three papers. He had given up morphine and hyoscine, after having used it in a long series of cases. He held that the dangers were in excess of the benefits that accrued. It was better to wait and to do with-

out drugs altogether. He had tried pituitrin, and believed that he lost a child through it. It was difficult to be certain in any given case how far off the delivery was. He spoke in favour of conservative treatment and as little interference as possible, and urged practitioners to have a consultation before undertaking serious interference.

In speaking of the treatment of febrile cases, he recommended uterine douching with a weak iodine solution. If the fluid returned discoloured good had been done. Under certain conditions the douching should be repeated. Before curetting was adopted he held it to be essential to exclude all other causes of the raised temperature. At times the uterus falling back prevented the lochia from coming away. He considered that the blunt curette was a better instrument than the practitioner's finger. He disapproved of sitting a patient up early after delivery. He held that it was not permissible to argue as if the vagina immediately after delivery was physiologically in the same condition as under ordinary circumstances. If the lochia were not infected, no harm would follow when they were retained to some extent. He kept his patients in bed for at least six days, and, if possible, 10 or 14. Referring to Dr. Barrington's paper, he expressed the opinion that errors might occur if the duration of pregnancy was gauged from the size of the uterine contents. In the case of hydramnios, the measurements would be quite unreliable. While he admired the paper, he thought that it would be dangerous to teach this doctrine to general practitioners. He was inclined to leave matters alone.

Dr. J. C. Windeyer made some remarks in regard to the treatment of puerperal sepsis. They had had a considerable experience of septic cases in the septic block at the Royal Hospital for Women. The cases were chiefly from outside. He agreed with Dr. Parker that it was advisable to prop the patient up well for the purpose of securing free drainage of lochia. During the first four days of the puerperium the uterus was an abdominal organ, and was unlikely to become misplaced. After the end of the fourth day the vagina had recovered its tone, and the risk of misplacement was consequently lessened. In regard to the interruption of pregnancy at the calculated term, he pointed out that the size and weight of infants varied very considerably. He considered that the fœtus and not the uterus should be measured. For the induction of labour he had not had much success with gauze plugs. One, two or three bougies could be safely introduced, and he had made the experience that this procedure avoided unnecessary delay.

Dr. D. Kelly stated that if pituitrin were used and the child was not born within 35 hours it had to be repeated. He held that the general practitioner could not always bring on labour in the manner advocated by Dr. Barrington. He considered that castor oil and quinine yielded satisfactory results. In bad cases he used a bougie for the induction of labour. Turning to the question of fever, he advocated caution in the use of the curette, on account of the danger of perforation. It was, however, necessary to use it at times. The temperature frequently kept up as a result of retained membranes or retained pieces of placenta, and came down when these were removed.

Dr. C. D'Arcy opposed Dr. Armstrong's conservative method. She considered that the women's point of view was too frequently neglected. Morphine and scopolamine could be safely given with advantage, especially in hospital, when the patient had a house surgeon to look after her. The morphine should not be repeated, nor should either drug be given within four hours of delivery. She thought that each patient should be given a considerable amount of time and attention by the practitioner. She believed in a light chloroform anæsthesia during the first stage and the early part of the second stage. At times she gave 0.5 c.cm. of pituitrin one hour before delivery, and repeated the dose at the end of the third stage, to stop uterine inertia. For Cæsarean section chloroform anæsthesia and pituitrin were advocated. When acidosis was present, chloroform should be avoided, ether substituted and forceps always applied. In the case of albuminuria at eight months, the induction of labour resulted in the saving of life.

In his reply, Dr. P. L. Hipsley stated that he did not attribute the fever in any of his cases to disturbance associated with the secretion of milk. He insisted that in all cases of sapræmia with offensive discharge curetting was needed. He advised an intra-uterine douche and the application of a blunt curette. The curette should not be used in septicæmia. He admitted that it was sometimes difficult to distinguish between septicæmia and sapræmia. A single intra-uterine douche, in his opinion, did no harm, even if pyelitis were present. Referring to the treatment of fracture of the thigh in infants, he disagreed with Dr. Worrall, and claimed that excellent results were obtainable without the use of a splint. The effects at first appeared to be bad, but later on they were quite satisfactory. He considered it unnecessary to place the puerperal woman in a sitting-up position. The suggestion that this posture favoured drainage was illusory, since the vagina was not an actual cavity, but was merely a potential one. In conclusion, he expressed his concurrence with the views expressed concerning payment for additional visits. In practice, however, the patient expected treatment from the time of engaging the doctor until after the confinement for the single fee.

Dr. J. C. Windeyer considered that the reference to morphine and scopolamine had justified itself, in view of the difference of opinion that had been expressed. He made a few remarks in regard to the points from which measurements of the uterus should be made.

Dr. Barrington thought the two papers to which he had listened most practical. The emphasis laid on prematernity examination of the pelvis and the routine examination of the urine was all-important. He congratulated Dr. Hipsley on his splendid results, and agreed with him that the bare hand was the best for removing an adherent placenta. It was then difficult enough to remove the placenta completely. It was important to keep the hands from septic contact by the constant use of rubber gloves. He agreed with those who deprecated the use of the curette post-partum. The finger was the best curette in sapræmia, and, if worked in conjunction with the other hand on the fundus, there was little risk of damage. He had found scopolamine and morphine, with $^1/_{120}$ gr. of atropine, of great value in nervous primiparæ who stood pain badly. He gave one dose only, and aimed at giving it three or four hours before the chloroform analgesia of the second stage. He was strongly of opinion that civilized women needed some relief for the pains of labour. He did not use pituitrin during the course of normal labour. He had seen cases of extensive damage to the cervix and complete rupture of the perineum from its use. As a routine, he always had the head of the bed raised from the first, and allowed his patients to sit up for their meals after the bowels were opened. Women with contracted pelves rarely objected to prophylactic induction, although this procedure had been replaced to a large extent by Cæsarean section. In protracted gestation a similar disproportion existed, and sensible women raised no objection to it.

A clinical meeting of the Victorian Branch was held at the Melbourne Hospital on August 2, 1916, Dr. A. V. M. Anderson, the President, in the chair.

Dr. J. E. Wilkinson moved that a letter of sympathy be sent to Lady Horsley, expressing the appreciation of the members of the Victorian Branch of the great kindness of Sir Victor Horsley to Australians. No man was kinder, he said. He had helped medical men at every opportunity, and had put them into the way of receiving help from others. He accomplished great things, not only for the British Medical Association, but also for the whole of the medical profession, for science and for Australians.

Mr. G. A. Syme seconded the motion. He said that it came as a great shock to all to learn of Sir Victor's death in Mesopotamia. Mr. Syme knew him personally, and saw much of his work, both in London and more recently in Egypt. No man belonging to the medical profession had higher ideals, either as a surgeon or as a citizen, in regard to matters of extra-professional importance. He had held strongly that a man with gifts or talents should devote them both to the advancement of the interests of his profession and to the betterment of humanity in general. In carrying out his ideals he had sacrificed his private practice, and had conducted laboratory experiments on the lines of public utility in various directions. He had done an enormous amount of work for the British Medical Asso-

ciation. During recent years he had become unpopular, on account of his advocacy of the National Insurance Act during its passage through the House of Commons. He had been led away by the object of the measure, which was for the improvement of the condition of the poorer people of the community. He had held the opinion that it might have been worked into a valuable piece of legislation for the community and for the profession. The profession had subsequently realized that it was not wholly a bad measure for the doctors. Everyone had recognized Sir Victor Horsley's whole-heartedness and integrity. He had carried out what he considered to be right, without regard to any consequences to himself. There were far too few of his sort, and these few could ill be spared.

Drs. Stawell and Sewell supported the motion, and spoke of Sir Victor Horsley's high qualities from personal experience. The motion was carried unanimously.

Dr. A. V. M. Anderson moved that a message of sympathy be sent to the widow of the late Dr. James Jamieson. He had done much for medicine in Melbourne. He had been a President of the Medical Society of Victoria, which was incorporated with the Victorian Branch of the Association, and a lecturer at the University in Obstetrics and in Medicine. The speaker had been in close touch with his work at the Alfred Hospital. This work had been characterized by a sincerity and a whole-hearted desire to advance the cause of science, and particularly of the science of medicine.

Dr. Norman McArthur seconded the motion, which was carried unanimously.

Dr. J. F. Wilkinson exhibited two patients.

1. *Typical aortic regurgitation.*—The patient was a labourer, aged 35. He had been seen by various practitioners, in hospitals and out, but the regurgitation had not been detected. He had had rheumatic fever at the age of seven years, and recurrent attacks at intervals. There was marked pulsation visible in the upper part of the thorax. The aortic diastolic murmur might have been overlooked, partly on account of the loudness of the second sound.

2. *Typical mitral stenosis.*—The patient was a female, aged 45 years. The cause had not been traced. There was a loud bruit over a limited area. With a failing heart and a vigorous, sharp, first sound, it was easy to diagnose mitral stenosis apart from bruit.

Dr. S. P. Croom showed a case of *chancre of the upper lip* in a girl, aged 18 years. The infection was said to have been acquired by kissing another girl. The glands at the angle of the lower jaw were considerably reduced in size after an injection of neo-salvarsan.

Mr. A. S. M. Tymms demonstrated a case of *carcinoma of the rectum* in a man, aged 57, an orchadist, who had been admitted to the Melbourne Hospital on January 19, 1916. For three years he had had bleeding piles. Six months before admission he had had symptoms of difficulty in evacuating the bowels, and had himself noted an alteration in the shape of the motion, which was pencil-shaped. Six weeks before admission he had passed slime and mucus in the intervals between the actions of the bowels. There was some trouble with micturition, and there was a bleary discharge. There was no history of syphilis or gonorrhœa. On examination there was found a large, typical, fungoid, cauliflower growth encircling the rectum, 1½ inches from its juncture with the anal canal, and apparently adherent to the bladder wall. On January 24, 1916, a preliminary colostomy had been performed. Ten days later Mr. Tymms had removed the coccyx, together with a small portion of the sacrum, without dividing the sphincters. Through that incision the growth was freed, the bowel drawn well down and the glands cleared out. The growth was excised and proximal end of gut was then pulled down through the anal canal and sutured to the anal margin. The wound was then packed with gauze and closed. The wound healed in five or six days. Later the anal sutures gave way and the bowel receded within the anus. The patient was discharged on March 30, 1916, and, a week later, on rectal examination, good union was found one inch inside the anal margin. It was dilated a few days later with a bougie. On June 5, 1916, the old colostomy was closed by dissecting it out and resecting the old colostomy opening through the original colostomy incision. An end-to-end anastomosis was then performed. The patient was very well nearly six months after the operations. He had good action of the bowel, with excellent sphincteric control, and without any evidence of local or glandular recurrence of the trouble. Mr. Tymms thought that the union where the colostomy was closed might constrict, but so far there was no evidence of it.

Mr. Tymms also showed a case of *multiple osteomata* in two brothers. The patients, aged 16 and 17 years respectively, were members of a family of eight children. The elder boy complained of locking of the left knee-joint on certain movements and some pain on sitting down and getting up. On examination there were found osteomata distributed all over his body, and especially along the long bones of the lower limbs, some resembling mushroom projections. These had been noticed ever since he was a young child, but gradually they had been getting larger. His brother exhibited a similar condition. There was no history of syphilis. The Wassermann reaction was negative. No other member of the family had a similar condition. Two of the osteomata lying along the tibia were removed.

Dr. Cedric Roche showed a case of *diffuse swelling of the calf muscles* in a boy, aged 18. He had complained of pain in the left calf ten days before. There was a hard, dense swelling of diffuse character, not very tender. While under observation it had become larger and more tender; pain on walking was more marked. There was no vascular or lymphatic obstruction. The case was presented to get an expression of opinion as to the nature of the swelling. There was no evidence of œdema. The Wassermann reaction was negative; there was no evidence to suggest specific trouble. There was no bony change, except for some thickening on the posterior aspect of the tibia. Possibly there might be some vague inflammatory condition deep down in the calf.

Dr. S. V. Sewell was to have shown two cases, but, owing to the bad weather, neither patient was able to attend. He explained that the first case was one that had been watched for seven years. It was an instance of *hyperpiesis with fall of blood pressure on the development of goitre.* The patient was first seen in the Out-patients' Department at St. Vincent's Hospital for facial paralysis. The blood pressure was 218 mm. of mercury. She was then under observation for six months. There was a complete and gradual return of power in the face. In 1914 she had come to the Melbourne Hospital as an out-patient with an attack of Graves' disease and goitre. She had lost a great deal of weight. The blood pressure had dropped to 150 mm. She was treated with quinine hydrobromide and calcium lactate for the exophthalmic goitre, and the condition had gradually improved. The auricle was now not fibrilliating, and the heart condition was good. The blood pressure had never risen above 170 mm. It was an interesting physiological observation that the exophthalmic goitre had overcome the activity of the conditions bringing about hyperpiesis. This was the second case he had had in which there was a persistent auricular fibrillation with a definite high blood pressure, which, on the development of exophthalmic goitre, had fallen to normal.

His second case was one of *persistent auricular fibrillation.* Up to five years before the patient had had dropsy, with double auricular fibrillation. Both cavities of the chest had been aspirated, and the abdomen drained, as were also the legs. She had been into the hospital nine times in the course of two years, always in the same condition—completely waterlogged. Under treatment with digitalis she had improved, and had left the hospital. The only treatment was a daily dose of digitalis. She had never had the slightest break-down since. The auricle was still fibrillating, and there was no return of the dropsy. In answer to a question, Dr. Sewell said that the woman decided the amount of dosage for herself. Sometimes she took 20 drops at night, if she felt tired, and at other times as little as five drops; but she did not take more than one dose in the 24 hours.

Dr. H. Crawford showed two cases for Dr. W. J. Denehy.

The first patient was a female, aged 17, who complained of twitchings, at times localized, and at other times generalized. The onset dated six months before. Her throat had become sore two months later, and the cervical glands had enlarged. This attack lasted for three weeks. At present she had a few sharp-cut ulcers on tonsils. The glands in the anterior triangles were slightly enlarged and shotty.

Two months after the onset she had complained of a scaly skin condition, with marked congestion and œdema confined to legs from the knees to the ankles. No irritation accompanied this lesion. Urine at this stage contained traces of alumin. On July 4 she had a convulsion, and lost consciousness for a few minutes. The pulse was rapid, and there were general clonic movements. She recovered rapidly. Shortly after lesions like "boils" appeared on the legs, in sites of old "crusts," and the patient stated that the "boils burst." The lesions at first appeared like pale, exuberant, granulation tissue, and were bathed in pus and showed some inflammatory area around them. Owing to the presence of the twitchings noticed in the ward (the worst one being generalized, without loss of consciousness) a Wassermann test was carried out and a positive reaction obtained. The family history was clear. The patient was not of a nervous nor hysterical temperament. Difficulty was found in correlating these signs and symptoms, and especially in discovering their relation to the positive Wassermann reaction.

The second case was a *cerebral thrombosis with left hemiparesis and left homonymous hemianopsia.* The patient, a boy, aged 16 years, had been quite well till November, 1915, when he had three or four bilious attacks. There was a feeling of giddiness. He staggered when he walked, and vomited, with giddy turns. He felt quite well a couple of hours later. In December, 1915, he fell off a signal box; he did not have a "giddy turn." He jarred his heel, and was off work for a week. He then worked for three months, but used to roll (not especially to one side) when he walked. He seemed to go to sleep while standing. In March, 1916, he slipped off a lamp-post, and was unable to walk for a week, owing to a sore ankle. During this week he noticed loss of power in the left side. On admission to hospital he could only just lift the heel off the bed and flex his fingers. There was never any loss of consciousness. He was admitted as an in-patient for eight weeks. His father had died of paralysis, due to a fall, and his mother had died of neuritis. On March 7 his vision was good and his pupils were equal and reacted naturally. The cranial nerves were unimpaired, except the seventh. Kernig's and other signs were more marked on the left than on the right side. The superficial abdominal and the cremasteric reflexes on the left side were positive and on the right absent. The plantar reflex on the left side was extensor and on the right side flexor. Oppenheimer's sign was present on the left side. There was left-sided paræsthesia. The upper bicuspid teeth were typically peg-top. The Wassermann reaction was negative. While in hospital the patient complained of right-sided occipital pain. He said that he usually tended to fall to the right. On April 12 all the reflexes on the left side were greater than the right. Ankle clonus and patellar clonus were more marked on the left than on the right side. The patient complained of giddiness. Two days later the fundi were natural; wavy arteries were seen. A small pigmented spot was present at the right upper periphery. The vision was hypermetropic. On June 19 he complained of right-sided parietal headache, mainly at mid-day. When shown, he still rolled when he walked. He complained of pain from the right eye to the right occipital region. Dr. Parnell has reported the presence of a left homonymous hemianopsia (nasal right half and temporal left half). The fundi and media were clear. This examination was made because it was found that he was unable to see on looking towards the right.

Dr. Crawford also showed two patients for Dr. W. R. Boyd. *Acute rheumatoid arthritis* in a girl, æt. 14. Pain was felt in the right knee in 1914; it subsided after 14 days. In August, 1915, the ankle of the right leg became swollen; and the right shoulder and neck became stiff and painful. Three months before admission the small joints of the hand became infected. The teeth were clean. There was no pain on movement of the phalanges. Vaccine prepared from the teeth did not produce any improvement. Tonsillectomy was performed on March 23, 1916, and a vaccine prepared. She had improved somewhat, and could move all the joints of the hand. The neck had completely recovered. Both ankles and knees were still affected. Under the autogenous vaccine from the tonsils she was progressing steadily.

The second case was one of *chronic rheumatoid arthritis* in an old woman. This case was submitted for comparison with the acute condition in a young person. Radiograms were shown of the knees and joints.

Dr. B. T. Zwar showed a *fracture of the femur* treated by the Hamilton Russell method. The fracture was a bad one, comminuted in the region of the neck of the femur. The result had been very satisfactory. Mr. Russell claimed for his method that the patient did more comfortably than under usual methods of treatment; the results were more rapid and very satisfactory. This case was a demonstration of all that was claimed for the method. The man fell on the railway line seven weeks previously, and fractured the neck of the femur close to the shaft and the small trochanter. Skiagrams taken before and after treatment were demonstrated.

Mr. C. A. Syme showed a *longitudinal fracture of the lower end of the femur.* The patient was a labourer, aged 34. There was a history of a fall of nine feet from a scaffolding on April 4, 1916. Several planks fell with him and on top of him. He did not remember how he fell, or whether he struck his knee. He was unconscious for two hours and confined to bed for a month. He made a complete and rapid recovery, except for synovitis of the left knee, which had been swollen and painful ever since. The patient had been unable to walk. It was then diagnosed as a tubercular knee. On admission the left knee was found to be swollen. There was distinct fluctuation and slight tenderness over the joint. Considerable tenderness was discovered over the inner aspect of the upper third of the tibia, where a tumour could be felt on the bone. There was discolouration of the lower half of the leg. A longitudinal fracture of the lower end of the femur, running into the intercondyloid notch, was demonstrated radiographically. On July 21, 1916, the knee was aspirated, and 22 c.cm. of uniformly blood-stained fluid obtained. Two and a half cubic centimetres of a 10% iodoform solution in glycerine were injected, and the leg was put up on a back splint. There was a great deal of pain. Six days later the leg felt more comfortable. The swelling over the tibia appeared to have a definitely softened centre. The skiagrams of the longitudinal fracture in the bone were shown.

Dr. W. Kent Hughes showed three cases of *carcinoma treated by the diathermic method.* Two had been carried out on the previous day and one that day. This method was used at St. Bartholomew's Hospital for inoperable cancer of the mouth and throat. It was spoken of very highly. In the place of a sloughing ulcer a smooth cicatrix was obtained. A current of high frequency and high penetration was used. If it accomplished nothing more than that the patient could be assured that he would have a smooth cicatrix, and that he would be able to live in comfort for the rest of his days, Dr. Kent Hughes thought that it was worth trying. He offered to show the apparatus in operation at his rooms on the following day to any member who cared to attend.

Dr. Cowan showed a case of *acromegaly* for Dr. F. H. Langlands. The patient had been brought in on account of a fracture of the neck of the femur, due to direct violence. He had had a fall of 14 feet. The size of his hands was at once noticed, as well as the size of his lower jaw. He stood 5 feet 11½ inches, and weighed 15 stone. He stated that his hands and jaw had always been large. He had one brother who was remarkable for the size of his hands. His parents' hands were of normal size. There were no other symptoms, no glycosuria and no bowing of the legs. His feet were not enlarged. A radiogram showing well-marked lipping of the phalanges was demonstrated.

The following have been nominated for election to the New South Wales Branch:—

Dr. Cecil R. Quinn, Royal Alexandra Hospital.

Dr. Charles D. Bateman, Albion Park.

Dr. Thomas E. Marshall, Fremantle Hospital.

Dr. William Henry Roberts, 26 Wellesley Street, Summer Hill.

BRITISH MEDICAL HALL COMPANY, LIMITED.

The Half-yearly Meeting of Shareholders of the British Medical Hall Company, Limited, was held on July 27, 1916, at the Lister Hall, Hindmarsh Square, Adelaide.

The Directors' Report was presented and adopted:—

Your Directors submit their Report and Balance Sheet for the year ending July 10, 1916.

Your Directors regret that they have been compelled to renew the mortgage on the property; that its amount is still £2,200, not having been reduced; that it has been renewed for two years at the increased rate of 1%, so that we now pay 5½% interest.

Our income has fallen from £479 4s. 8d. in 1915 to £347 6s. 2d. in 1916, deficit of £131 18s. 6d.

Expenditure in 1915 was £381 8s. 7d. Expenditure in 1916 was £386 14s. 3d.

The credit balance on July 10, 1915, was £134 17s. 3d. The credit balance on July 10, 1916, was £95 3s. 5d.

The income has fallen because tenants have left, and because less money has come in for letting the hall.

Depressed conditions, owing to war and the late drought, have been instrumental in causing this lamentable want of success, which is not, however, irremediable.

It has been found necessary during the current year to purchase a piano to encourage the better letting of the hall. We are satisfied that our agents are active in endeavouring to secure tenants.

No dividend is recommended, considering the small amount to credit.

Your Directors have throughout the year given the hall free of charge to many patriotic and charitable societies.

At the present time 88 members of the British Medical Association hold shares in the company. Seventy-one members hold preference shares, of whom 19 also hold ordinary shares. Seventeen members hold ordinary shares only.

There are still 281 shares in the company unallotted. Were these equally distributed among those members of the Association who at present have no direct financial interest, holding no shares, the overdraft would be paid and the burden carried by the present shareholders removed.

There are 162 members of the Branch who do not hold any interest in the company, and your Directors trust that during the ensuing year at least 220 shares will be taken up by them.

BEN POULTON, Chairman.
J. ERNEST GOOD, Acting Hon. Secretary.

21st July, 1916.
North Terrace, Adelaide.

Profit and Loss Account for Year ended 10th July, 1916.

July 10, 1916.	£ s. d.	£ s. d.
To Maintenance of Buildings—Rates, Taxes, Telephone, Gas, Electric Light, etc.	148 11 5	
„ Office Expenses	14 13 6	
„ Interest Account	102 13 4	
„ Commission—R. W. Swan & Co.	9 15 0	
„ Caretaker's Wages	68 10 8	
„ Depreciation on Furniture	13 5 9	
„ Preliminary Expenses Written Off	29 4 7	
		386 14 3
„ Balance		95 9 2
		£482 3 5

July 10, 1916.	£ s. d.	£ s. d.
By Balance, July 10, 1915		134 17 3
„ Rent Account—Tenants of Building	£312 3 8	
Lister Hall	35 2 6	
		347 6 2
		£482 3 5

By Balance (brought forward)—£95 9s. 2d.

Balance Sheet as at 10th July, 1916.

LIABILITIES.	£ s. d.	£ s. d.	£ s. d.
Capital Account—			
Preference Shares—500 at £10	5,000 0 0		
Less Unissued—225 at £10	2,250 0 0		
		2,750 0 0	
Ordinary Shares—200 at £10	2,000 0 0		
Less Unissued—56 at £10	560 0 0		
	1,440 0 0		
Less Amount Unpaid	100 0 0		
		1,340 0 0	
			4,090 0 0
Executor, Trustee & Agency Co.—Mortgage on Building			2,200 0 0
Profit and Loss Account—Balance			95 9 2
			£6,385 9 2

ASSETS.	£ s. d.	£ s. d.
Buildings and Property—Hindmarsh Square	5,500 0 0	
Renovations and Alterations	390 5 3	
		5,890 5 3
Furniture and Fittings	265 15 10	
Less Depreciation	13 5 9	
		252 10 1
Preliminary Expenses	87 13 10	
Less Written Off	29 4 7	
		58 9 3
Bank of Adelaide		184 4 7
		£6,385 9 2

We have audited the Books and Vouchers of the British Medical Hall Company, Ltd., for the year ended July 10, 1916, and certify the above Balance Sheet to be a correct abstract thereof and to show the true position of the Company at that date.

AUSTIN & MENKENS, Auditors.

July 19, 1916.

Obituary.

DOUGLAS RODGER.

Lieutenant Douglas Rodger, whose death was recorded in our issue of July 15, 1916 (see page 43), was the youngest son of Dr. and Mrs. Robert Rodger, of West Kirby, Cheshire. He was born in 1883. He received his medical education at Trent College, Victoria University, Manchester, and graduated M.B., Ch.M., in 1907. He also studied at Edinburgh, where he took the Fellowship of the Royal College of Surgeons in 1912. In the same year he came to Australia, and was appointed Ophthalmic Inspector of Schools on a three years' engagement with the Department of Public Instruction of Queensland. On the outbreak of war he offered his services, and in 1915 left for England to join the Royal Army Medical Corps. At first he worked at a Base Hospital at Le Tréport, and later at an advanced dressing-station attached to the 90th Field Ambulance.

He was killed in action on July 1, 1916. The Officer commanding the dressing-station wrote to his father as follows:

> "At about 6 o'clock in the morning of July 1 he took his bearers up to the trenches to bring down the wounded. It was about 4 o'clock in the afternoon when we heard that he and his servant had been killed. It seems that he was standing in the door of a dug-out with his servant behind him, speaking to one of the regimental medical officers, when a shell burst in the trench alongside and killed them both instantaneously, the other officer being untouched.
>
> "Douglas's body was brought that evening and taken to Headquarters, and he was buried in the cemetery at Warloy with military honours on July 5, 1916.
>
> "The Colonel and all of us always had a very high opinion of Douglas, both as an officer and as a man. He was very keen about his work. The men were very fond of him, always speaking of him as 'one of the best.' On the day he was killed, several officers told me (afterwards) that he had been doing great work among the wounded, and that it was a great pity that his work was cut short, so bravely did he carry himself."

The havoc wrought by this iniquitous war is immeasurable. Young men with a promise of a useful life can ill be spared, and yet the war is robbing us of men like Douglas Rodger.

Correspondence.

SCHOOL HYGIENE.

Sir,—I must take exception to the statements made about my book on "School Hygiene" in your journal of the 9th instant.

I must first point out that this book was compiled, not for medical students, but, as the preface shows, for readers of an elementary standard.

To the sweeping assertion that there are many misleading statements, I am able to reply that recognized authorities can be quoted in support of practically every statement.

Now, taking the specific examples mentioned in their order:—

(1) "The pulse felt in the arteries is brought about by the blood being forced into the arteries at each contraction of the heart."

In reply to the criticism, I quote the following:—

(*a*) "At every contraction of the left ventricle, blood is forced into the arteries, causing the pulse."—Cantile.

(*b*) "It (the pulse) is the response of the arterial wall to the changes in lateral pressurre caused by each heart-beat."—"Handbook of Physiology," W. D. Halliburton.

(2) "The spread of infantile paralysis by carriers."

Your reviewer appears to consider that epidemiological evidence should be neglected, and only bacteriological findings taken into account. If such were the case, we would have to remain silent about very many of the infectious diseases, about which we know little or nothing bacteriologically.

(3) "Number of disease germs a fly can carry in its inside," etc.

Many authorities could be quoted in justification of my statements; but I will content myself with references to a paper by G. Lissent Cox, Assistant Lecturer in Pathology, Frederick C. Lewis, Assistant Bacteriologist, and Ernest E. Glynn, Professor of Pathology, University of Liverpool, which was published in the *Journal of Hygiene*, 1912.

The authors quote, as follows:—

"Jackson (1907) found as many as 100,000 fæcal bacteria in a single fly. Torrey (1912) examined flies caught in New York, and found the surface contamination varied from 570 to 4,400,000 bacteria per fly, and the intestinal bacterial content from 16 to 28,000,000."

Further, the authors, in their summary and conclusions of the experiments carried out by them (paragraph 2) state:—

"The number of bacteria coming from house flies whilst struggling in liquid may be very large, varying from 2,200, the lowest figure in five minutes, to 350,000, the highest figure in 30 minutes. This number may be taken as a measure of their capacity to pollute liquid with their vomit or excrement, or by wallowing in it. The number of bacteria carried inside the fly is very much greater."

That flies can travel long distances has been shown by the work of the Officers of the Local Government Board, England (Experiments with variously coloured flies); reports of the U.S.A. Public Health Service (distribution of flies by night carts, etc.); and others on flies travelling in trains and other vehicles.

(4) "Diagram showing the lay person how to cut out the bitten parts in snake bite."

Your reviewer apparently does not know that a similar diagram giving this "strange" advice has been issued by the Board of Health for many years. Also, the Royal Army Medical Corps' Book of Training contains very similar advice to the lay person, *viz.*, "Should the wound be in a part of the body where a band cannot be placed, then at once make a crucial incision." Perhaps it would be better to let the bitten person die rather than allow the terrible lay person use a pocket-knife.

(5) "Medical inspection."

The teacher does not record chest measurements, and my book makes it clear that this is the case.

(6) "Time taken over medical inspections."

This question, not being mentioned in the book under review, is outside the scope of the review. In any case, the reviewer's opinion can hardly be compared with that of school medical officers of all the various States and the Old Country, who have had years of practical experience in this work.

Of course, one realizes that the persons who know least about our work are those who have in the past, and are now, giving special time to its study.

Yours, etc.,

C. SAVILL WILLIS.

Department of Public Instruction, N.S.W.,
Medical Branch, Sydney,
11th September, 1916.

[(1) Dr. Willis does not appear to recognize that there is an essential difference between the effect of the blood being forced into the arteries at each contraction of the heart and the response of the arterial wall to the changes in lateral pressure caused by each heart beat. It is scarcely necessary to argue the point, since physiologists have recognized that what is known as the pulse is caused by a wave starting from the heart and travelling at a greater rate along the arteries than the blood does.

(2) We cannot understand how it is possible to speak about the spread of infantile paralysis by carriers when it is admitted that the cause of the disease is unknown. Dr. Willis's definition of a carrier suffices for our purpose. Carriers are "persons who, although apparently healthy themselves, yet harbour the germs of disease in some part of their body, and are thus capable of communicating the disease to other persons." If the organism is unknown, how can it be proved that a carrier exists? Dr. Willis speaks of epidemiological evidence without adducing any. We are unaware of its existence.

(3) The reference to the danger of the domestic fly need not detain us long. Every living thing harbours immense numbers of bacteria, and there is evidence that flies at times convey pathogenic bacteria. There is, however, no evidence to show that a fly conveys under ordinary conditions large numbers of disease germs. The work of Graham-Smith and others has demonstrated the potential danger of flies.

In our review we admitted that the danger is very real; but we contend that there is no justification to exaggerate it and to assume that in ordinary conditions flies have an opportunity of picking up vast quantities of pathogenic bacteria.

(5) We are extremely surprised to learn from Dr. Willis that the teacher does not record chest measurement. The other points do not call for comment.]

THE PAUPER LINE.

Sir,—If I wish my child to compete for a bursary under our educational system, I must make a statutory declaration as to (*a*) the amount of my income, (*b*) the source from whence it is obtained, (*c*) the number and relation of dependents, (*d*) the amount I pay for house rent, etc.," etc. If I satisfy the Board on these points, and my child shows sufficient proficiency, she gets a bursary.

This appears to me to set up a much more arbitrary "pauper line" than that which the B.M.A. asks when the Department proposes to dispense free medical attendance to all school children.

Yours, etc.,

R. E. WOOLNOUGH.

Sydney, September 9, 1916.

Medical Appointments.

Dr. J. T. Paton has been appointed Government Medical Officer at Millthorpe, New South Wales, in place of Dr. A. G. Cribb (resigned).

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser," page xix.

Thursday Island Hospital, Medical Officer.

Goodna Hospital for the Insane, Queensland, First Assistant Medical Superintendent.

Jerilderie District Hospital, Medical Officer.

Medical Appointments.

IMPORTANT NOTICE.

Medical practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429 Strand, London, W.C.

Branch.	APPOINTMENTS.
VICTORIA. (Hon. Sec., Medical Society Hall, East Melbourne.)	Brunswick Medical Institute. Bendigo Medical Institute. Prahran United F.S. Dispensary. Australian Prudential Association Proprietary, Limited. National Provident Association. Life Insurance Company of Australia, Limited. Mutual National Provident Club.
SOUTH AUSTRALIA. (Hon. Sec., 3 North Terrace, Adelaide.)	The F.S. Medical Assoc., Incorp., Adelaide.
QUEENSLAND. (Hon. Sec., B.M.A. Building, Adelaide Street, Brisbane.)	Brisbane United F.S. Institute.
WESTERN AUSTRALIA. (Hon. Sec., 230 St. George's Terrace, Perth.)	Swan District Medical Officer. All Contract Practice Appointments in Western Australia.
NEW SOUTH WALES. (Hon. Sec., 30-34 Elizabeth Street, Sydney.)	Department of Public Instruction—New Appointments as Medical Officer, Ophthalmic Surgeon, Ear, Nose and Throat Surgeon, Physician. Australian Natives' Association. Balmain United F.S. Dispensary. Canterbury United F.S. Dispensary. Leichhardt and Petersham Dispensary. M.U. Oddfellows' Med. Inst., Elizabeth Street, Sydney. Marrickville United F.S. Dispensary. N.S.W. Ambulance Association and Transport Brigade. North Sydney United F.S. People's Prudential Benefit Society. Phœnix Mutual Provident Society. F.S. Lodges at Casino. F.S. Lodges at Lithgow. F.S. Lodges at Orange. F.S. Lodges at Parramatta, Penrith, Auburn, and Lidcombe. Newcastle Collieries — Killingworth, Seaham Nos. 1 and 2, West Wallsend.
NEW ZEALAND: WELLINGTON DIVISION. (Hon. Sec., Wellington.)	F.S. Lodges, Wellington, N.Z.

Diary for the Month.

Sept. 19.—N.S.W. Branch, B.M.A., Executive and Finance Committee.
Sept. 20.—W. Aust. Branch, B.M.A., General.
Sept. 22.—Q. Branch, B.M.A., Council.
Sept. 26.—N.S.W. Branch, B.M.A., Medical Politics Committee, Organization and Science Committee.
Sept. 27.—Vic. Branch, B.M.A., Council.
Sept. 28.—S. Aust. Branch, B.M.A., Branch.
Sept. 28.—N.S.W. Branch, B.M.A., Return of Ballot Papers for Election of Two Members of Federal Committee.
Sept. 29.—N.S.W. Branch, B.M.A., Branch (Ordinary), Election of Two Members of Federal Committee.
Oct. 3.—N.S.W. Branch, B.M.A., Council (Quarterly).
Oct. 4.—Vic. Branch, B.M.A., Branch.
Oct. 6.—N.S.W. Branch, B.M.A., Annual Meeting of Delegates of Local Associations with Council (First Day).
Oct. 6.—Q. Branch, B.M.A., Branch.
Oct. 7.—N.S.W. Branch, B.M.A., Annual Meeting of Delegates of Local Associations with Council (Second Day).
Oct. 10.—N.S.W. Branch, B.M.A., Ethics Committee.
Oct. 10.—Tas. Branch, B.M.A., Council and Branch.
Oct. 12.—Vic. Branch, B.M.A., Council.
Oct. 13.—S. Aust. Branch, B.M.A., Council.
Oct. 13.—N.S.W. Branch, B.M.A., Clinical.

EDITORIAL NOTICES.

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